Vol. 5, No. 5 The HP Portable/Portable Plus/Portable Vectra Users Newsletter September / October 1990

THE Portable Paper

1991 Portable Paper
-- All Six Issues to be Published
-- Great New Subscribers Disk!

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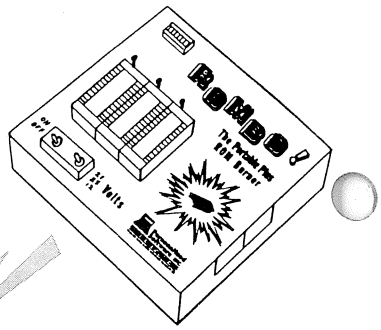
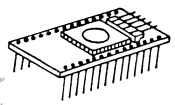
ROMBO!

Portable Plus users:

Now you can easily put programs and data on ROM yourself!

— up to 1.5 megabytes per ROM drawer!





No more lugging a disk drive wherever you go! No more taking up precious Edisk space with frequently used programs and data! Now you can easily put almost any program - and important data - on ROM chips and store them in your Portable Plus's ROM drawer.

ONE YEAR GUARANTEE • 60-DAY TRIAL
See order form for details

Once you've done so, your programs and data are available instantly, with no danger of loss and no need for an external disk drive.

"Burning" your own ROMs is easy - even for a computer novice - with our Portable Plus ROM Burner. All you do is connect the ROM Burner to your Plus, and follow the simple instructions we provide for using the software that comes with the unit. (We even show you how to have your ROM programs automatically show up on your PAM menu!)

ERASABLE!

If you make a mistake while burning in a ROM - or if you later wish to change the contents of your ROMs - no problem. Just use the ultraviolet eraser that comes with our ROM Burner and start over. (Our programmable ROMs are technically "EPROMs", which stands for "erasable programmable read-only memory.")

UP TO 3 MEGABYTES ON ROM!

The ROM drawer that fits into the bottom of your Portable Plus has sockets for 12 ROMs. Each socket can hold a 128 Kbyte ROM. Even though there are more than 50 programs now available on ROM for the Portable Plus, most people only use 2-6 of the 12 sockets - which means part of the 1.5 megabytes of each drawer's available ROM capacity is going to waste.

Our Portable Plus ROM Burner lets you fill that unused ROM space with fixed data and with almost any Portable Plus program you wish - including programs that are not commercially available on ROM. This eliminates the need for an external drive and frees up valuable space on your electronic disk.

Regardless of your needs, we invite you to take advantage of this Portable Plus break-through. Put your programs and fixed data on ROM and experience the ultimate in portable computing convenience. Order our ROM Burner for the Portable Plus today.

HERE'S WHAT YOU GET

A must for every Portable Plus user, ROMBO: our ROM Burner package includes:

1. **Personalized Software ROM Burner for Portable Plus, with serial cable.** Burns commercially available 64 Kbyte ROMs or special Personalized Software 128 Kbyte ROMs.
2. **Ultraviolet eraser.** Erases 64K or 128K ROMs for reburn. Lets you correct mistakes or change programs or data. Also useful for testing to make sure your newly burned ROMs work properly.
3. **All necessary software,** including: two compression programs that shrink COM and EXE files so you can fit more programs on ROM.
4. **Two Personalized Software 128 Kbyte EPROMs** (erasable programmable ROMs).
5. **Complete user manual.** Clear, step-by-step tutorial, written for novice and experienced users alike. How to burn ROMs, how to use accompanying software, how to get ROM programs to show up on your PAM screen. Also includes suggestions on what to put into ROM, how to avoid snags, and other tips based on our years of experience in supporting the Portable Plus.

PRICING

- EP10NH **Rombo: Personalized Software ROM Burner Package for the Portable Plus** (ROM Burner, serial cable, ultraviolet eraser, software, two 128 Kbyte EPROMs, user manual) Retail: $695 Subscriber: $595
- **Personalized Software 128 Kbyte erasable programmable ROMs (EPROMs) for the Portable Plus**
  EP11NR Single EPROM Retail: $69 Subscriber: $59
  EP12NX Set of 4 Retail: $276 Subscriber: $199
- **Personalized Software 128 Kbyte non-erasable programmable ROMs (PROMs) for the Portable Plus**
  (Ideal for making multiple copies of ROMs)
  EP18NR Single PROM Retail:$64 Subscriber: $54
  EP19NX Set of 4 Retail:$256 Subscriber: $179
- EP13NR **27C512, 12.5V, 64 Kbyte EPROM**
  Retail: $25 Subscriber: $22
- EP14NS **ROM Burner software and manual only**
  (Useful if you wish to burn your own 64 Kbyte EPROMs for the Portable Plus using a different ROM burner)
  Retail: $250 Subscriber: $195
- SW11UC **Portable Plus ROM drawer**
  Retail: $195 Subscriber: $99
- EP15NE **Custom ROM services**
  EPROM (includes 10 minutes testing to make sure your ROM works in Portable Plus as specified)
  Retail: $150 Subscriber: $135
- EP16NE **ROM consulting** (additional testing, batch file rewriting, etc.): $75/hour

- **RENTAL** $195 per month. Call for details.

BREAKTHROUGH IN PORTABLE PLUS ROM TECHNOLOGY

Our Portable Plus ROM Burner is a breakthrough for Portable Plus owners. It copies programs and data onto special 128 Kbyte programmable ROMs created exclusively for us.

Aside from ours, the largest commercially available programmable ROMs that fit the sockets inside the Portable Plus ROM drawer are only 64 Kbytes. Our 128 Kbyte programmable ROMs give you double the storage capacity!

Moreover, unlike the procedures you have to go through with other ROM Burners, ours are easy. We supply all the software you need and a user manual that even a novice can follow with ease. Most importantly, ours is the only ROM Burner that lets you burn these ROMs directly from your Portable Plus.

We also offer custom burning of non-erasable ROMs. With volume discount, this can cost significantly less than the price of blank EPROMs.

Call for a quotation.

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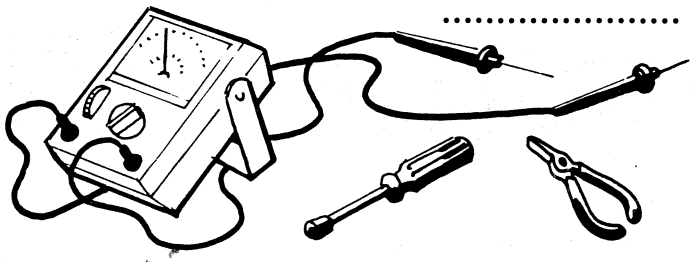
NEW!

Save money on repairs and upgrades

90-day guarantee on all repairs and upgrades.



Let our expert technicians fix your HP equipment — HP110, Portable Plus, ThinkJet, HP9114, HP150 computers and disk drives, and more!

HP Portable and HP150 users: If your equipment isn't working properly — or you've outgrown its capacity — don't throw it away!

Send it to us instead. We'll send it back running like a charm.

Repairs are as low as $65. Most upgrades are $250 or less. And we guarantee our work for a full 90 days.

To set up an appointment for a repair or upgrade, give us a call. Then send in your machine. We'll look at it for just $25, then give you a firm price on parts and labor. If you decide to go ahead, the $25 will be applied to the cost of our work.

Here are some typical charges:

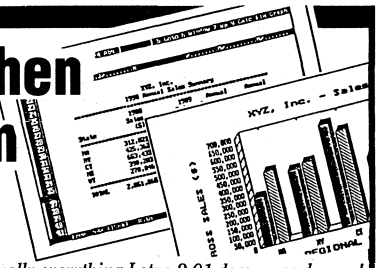
- HP110 or Portable Plus screen replacement or upgrade: $195
- HP110 or Portable Plus keyboard replacement: $250
- HP110 or Portable Plus case replacement: $175
- HP110 or Portable Plus internal modem replacement: $195
- FastPlus upgrade (faster processor for Portable Plus) : $250
- 256K to 512K upgrade for Portable Plus: $395
- 128K to 512K upgrade for Portable Plus: $495
- HP9114 repair: $65-135
- HP ThinkJet repair: $65-135

Other repairs depend on our cost of parts and a $42/hour labor charge. You can expect a range of $75-$250 for repairing most HP Portable and HP150 computers and peripherals.

To extend the life of your HP equipment, call our repair service today! (800) 373-6114. We guarantee you'll be pleased with the results!

Why pay $500 or more for Lotus® 2.01 when you can have a fully compatible program for just $79.95?

$79.95 for disk version; $195 for disk version plus ROM Backup (subscriber prices)



As-Easy-As does virtually everything Lotus 2.01 does — and more! Portable Plus version is available only from us.

Until now, if you wanted the advantages and compatibility of Lotus 1-2-3, Version 2.01 for your Portable Plus, you had to pay $625 retail for a ROM.

Now you can have a program that acts similar to Lotus 2.01 for just $195 (disk and ROM) — or only $79, if all you need is the disk version.

You can't get that much spreadsheet power for your Portable Plus for less!

The program is called As-Easy-As, because it's as easy as 1-2-3 (get it?), and it fully lives up to its name: As-Easy-As does almost everything Lotus 2.01 does (see list at right). It even does some things Lotus can't do, like matrix operations.

If you're new to spreadsheets, you'll find As-Easy-As to be powerful, yet easy to learn and use.

If you already use Lotus, you have nothing new to learn. As-Easy-As works in much the same way — and it reads and writes Lotus 2.01 WK1 files and Lotus 1A WKS files, so you don't have to change your data.

To gain the advantages of Lotus 2.01 at a fraction of the price, order As-Easy-As at our risk today.

	Retail Price	*Subscriber Price*
As-Easy-As on disk	$99.95	$79.95
	PRODUCT NO. AS11NS	
As-Easy-As ROM Backup (disk + ROM)	215.00	195.00
	PRODUCT NO. AS11NK	

Lotus 1-2-3 is a registered trademark of Lotus Development Corporation.

MEMORY REQUIREMENTS

As-Easy-As requires 272K of Portable Plus main memory, plus 120K of electronic or floppy disk space (plus another 50K of disk space if you want to use the Help files).

EASY AS 1-2-3

As-Easy-As gives you almost all the features of Lotus1-2-3, Version 2.01, including:

- Accommodates large worksheets (8,192 rows by 256 columns)
- Choice of Pull Down or Panel Menu Interface
- Choice of Functions including mathematical, statistical, logical, financial, string, date, time, and user- definable
- Powerful frequency distributions tables (Bins)
- Capable of linking current worksheet with information from other worksheets and disk
- Versatile, powerful graphics capabilities, including support for 9/24-pin and LaserJet printers, ability to create .PIC files, comprehensive chart-generation capabilities for bar, line, X-Y, pie, stacked bar, hi-lo, polar, area charts, and delta semi-log and log-log graphs
- X-Y data regression
- Database operations, data input forms, reads/writes dBASE files
- Text search, replace, justify
- Goal-seeking capabilities (give desired answer and As-Easy-As gives you the input)
- User-configurable printer setup file
- Worksheet auditing
- Named range, function, and macro selection lists
- Multiple planes (3-D simulation)
- Macro programming language, including over 70 powerful macros
- Macro record/playback capability and single-stepping through macros
- Full support of sub-directories and path names
- User-configurable screen options
- Able to shell to DOS.

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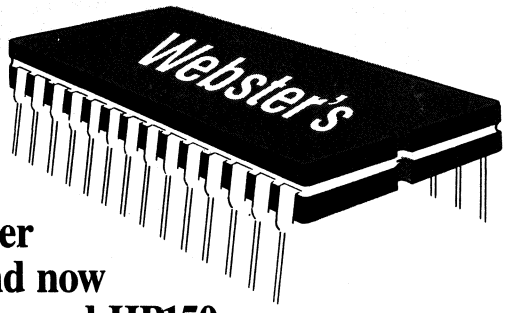
Portable Plus users: At last! A great spelling checker available on ROM!



Webster's (web'stərs) n. The spelling checker rated Editor's Choice by *PC Magazine* (Dec. 24, 1985), and now available from Personalized Software for the Portable Plus and HP150.

—Customized on 3½" disk by special arrangement with Simon & Schuster, Inc.

PC Magazine rated eight leading spelling checkers for ease of use, flexibility, speed, overall program size, thoroughness, and accuracy. WEBSTER'S NEW WORLD SPELLING CHECKER came out on top—for a number of good reasons:

First, there's sheer size. WEBSTER'S contains over *110,000 words* in its dictionary—five times the number in Hayden's Speller, 2½ times as many as in The Word Plus—yet WEBSTER'S dictionary and main program take up only 207K of disk memory.

Second, WEBSTER'S isn't just easy to use—it's positively a *pleasure*. It reads your files at high speed, then displays every questionable word *in context*, highlighted. At the same time, in a "window" off to the side, it gives you a list of possible correct spellings. A simple menu gives you the following options:

- Accept the word as is
- Replace the word with one of the suggested spellings
- Enter the correct spelling manually
- Add the word to an auxiliary dictionary of frequently used words
- Replace all other occurrences of the word
- Look up the spelling of any other word at any time

WEBSTER'S also lets you mark in your text any spelling corrections that change length of a word; this lets you quickly locate portions of text that may need reformatting.

WEBSTER'S will automatically locate double repetitions (like "and and"). It can correct transpositions ("itme" becomes "item"), missing apostrophes ("dont" becomes "don't"), and *typos* of all kinds ("spellling" becomes "spelling," etc.).

If you're not sure of a word, you can even *spell it the way sounds*, and chances are WEBSTER'S will supply the correct spelling. ("Fenomenon" gets corrected to "phenomenon," for example.)

In addition, WEBSTER'S will let you preview a list of all questionable words *before* displaying them in context; this saves you time because it lets you eliminate words from the questionable list (or add them to your auxiliary dictionary) before you begin the editing pass.

John Dvorak, writing in the *San Francisco Examiner*, called WEBSTER'S "the best spell-checker we've seen in a long spell." Henry Kisor of the *Chicago Sun Times* has called WEBSTER'S "the best proofreading software on the market." We agree with them both—and we think you will too. Order your copy at no risk today.

RECOMMENDED FOR:			
HP110 Portable		Portable Vectra	•
Portable Plus	•	HP150	•
IBM PC and compatibles			•
Available on ROM Backup for the Portable Plus			

Webster's Spelling Checker on 3½" disk customized for the Portable Plus and HP150 . . . . . $79.95
$69.95 for Portable Paper subscribers.
PRODUCT NO. WB11NS

Webster's is available on ROM backup for an additional $179. See ROM ad in this issue for important details.

WEBSTER'S SPELLING CHECKER works with any file produced by the Editor, WordStar, and MemoMaker. It also works with ASCII files produced by MS Word and Word Perfect.

Our version of WEBSTER'S includes a customized 3.5" disk and simple instructions for running the program on the Portable Plus and HP150. A special utility allowing WEBSTER'S to run on the HP150 is included on the disk.

60-DAY MONEY BACK GUARANTEE
See order form for details.

TO ORDER
Use enclosed postage-paid order form or send check or credit card information (#, exp. date, signature) to:
Personalized Software
P.O. Box 869, Fairfield, IA 52556 515/472-6330

PV PV users: Please subtract $10 from subscriber price (since we don't have to send you additional customized disks or extra documentation). Be sure to indicate "PORTABLE VECTRA" on your order.

Products Advertised or Discussed in This Issue

1991 Subscribers Disk . . . 19,30
As-Easy-As 1,26
Classical Classifer 29
Condor 13
DAC-EASY 19
Editor II, The 9
Empowerer 29
Ethernet Adapter 25
FastPlus 38
FilePlus 33
Formatter 9
HPduette 13
HP Professional 39
Kermit 3.0 4
LapLink 25
LapTape 25
Like-New Plus . . . . . back cover
Mobile Recharger 34
Norton Utilities 8, 27
No-Squint 25
Numeric Keypad 25
Portable Powerhouse 10
Power Cube 28
ReadHP 18, 40
Repairs 1
ROM Backup 20, 21
ROMBO ROM
Burner . . . . . inside front, 28, 34
Shelp 37
Sidewinder 11
SquishPlus 7
StatPower 25
Stero Shell 30
Stowaway Modem,Fax 10,12
Term110/Plus 41
Used Computers 11
Video 42
Voltage Adapters 18
Webster's Speller 2, 34
Weltech 5.25 Drive 25
WordPerfect 44
WordPlus 19
WorldPort Fax 19, 25
WorldPort Modem 31
Zenith SupersPort 24

PRICE LIST . . . . . center

FOR HANDY REFERENCE: Items *directly* relevant to the three HP Portables are denoted in this issue as follows:
110 110 Portable P+ Portable Plus PV Portable Vectra LS/12 Vectra LS/12
When items are *partly* or *indirectly* relevant they are denoted as:
110 110 Portable P+ Portable Plus PV Portable Vectra LS/12 Vectra LS/12

PUBLISHER'S MESSAGE

Hal Goldstein

We appreciate your ongoing comments about where Personalized Software should head in the future. Here is our current thinking: Through 1992 we will continue to market and support the HP Portables and the HP150, particularly the HP110 and Portable Plus. We will look for new markets that can best take advantage of all the strengths of the HP110 and Portable Plus -- long battery life, indestructibility, built-in ROM software, price, etc, etc., etc. -- and sell HP Portables and our many accessories into those markets. (We're open to suggestions and your help). In the meantime we will establish ourselves as the support hub for a major manufacturer's microcomputer products (like HP printers and microcomputers or Toshiba laptops).

The introspection involved while searching for new directions allowed us to understand our uniqueness in the marketplace: essentially *we are a for-profit international computer users organization.* Our primary mission is to collect and disseminate practical knowledge: knowledge about how to take full advantage of a computer, knowledge of products to enhance that computer, and knowledge about the advantages of using such a computer. That knowledge takes the form of a newsletter and long-copy advertisements for products that support a computer and for the computer itself.

Given this strategy and self-knowledge, we decided to publish The Portable Paper for at least one more full (6 issue) year.

Almost all 1200 current subscribers need to renew. Please help us help you and RENEW NOW. Take a moment and fill out the enclosed renewal form or give us a call. In exchange we will send you six more issues of The Portable Paper, a 1986-90 5-year index to The Portable Paper, and what should be the best (1991) Subscribers Disk yet.

We will continue to cover the HP110 and Portable Plus as in previous years. We will also cover the LS/12 and Portable Vectra CS as relevant material comes our way. For example, see article that appears in this issue about the extended LS/12 warranty. We may however not always run the Vectra Views column next year.

We look forward to continuing our role as the central hub for HP Portable knowledge in 1991.

LETTERS

Future Direction of Personalized Software

110 P+ I've taken advantage of Personalized Software's new editorial policy of printing the addresses of correspondents to contact Robert Moorehouse with information about the "25 cent" charger (see attachment). Robert wrote in the May/June issue of the Portable Paper that charging while on board a boat was one of many problems faced by the "boat people". I hope my advice on charging is useful to him.

Frankly, I'm surprised that no one else has expressed an interest in mobile recharging since we divulged the details of the "25 cent" charger (see Vol.4, No.5, Pg.27). Perhaps pride of creation is clouding my judgement, but the concept of this charger is so simple that I find it amazing that not one word was heard from other readers about implementing one of their own. Yet judging from the ads in the Portable Paper, you apparently continue to sell the Mobile Recharger, a device which is more costly, less reliable and does less than the "25 cent" charger. Oh, the whims of the public, even "high tech" public!

But I don't need to tell you about the whims of the public. Your comment that the renewal rate for subscriptions to the Portable Paper was only 67% spoke volumes. What a shock! Have you considered polling former subscribers to find out why they didn't renew? Lack of software to run on the HP? Battery problems? Bought a new computer? Yours is a fickle audience, Hal. All it takes to lose them is a glitzy new machine which runs some splashy software (which may even be productive) and they're gone. It's called planned obsolescence and the computer industry has been built on it.

You asked for guidance concerning Personalized Software's future role. Here are some thoughts. We may never see another product like the Portable Plus computer, but it seems to me that the strengths of Personalized Software lie in supporting such computer systems as they evolve. You might expand on this support base by branching out to other models besides HP and NEC. Continue to sell portable systems, possibly advertising in other publications such as RV and boat magazines. Both RV and boat markets seem to be largely untapped. (My long overdue article for Trailer Life magazine about our own experiences would help!). Sell accessories to the RVers and boat people which are geared for their special needs. For example, navigation software for boaters, as Robert Moorhouse suggests; trip and maintenance log spreadsheets for both; covers, supports and nonskid shelving for the hardware. Exploit the potential of the "25 cent" charger with a do it yourself kit which yields a charger consisting of a piece of wire and two connectors that fits in a shirt pocket. Develop a universal mobile charger applicable to several different portables. I would be pleased to expand on these latter items at your convenience.

People who commute great distances are likely to be users of portable computers. My wife suggests a "Commuter Computer" magazine for them. Their needs are obviously different: business software, schedulers, word processing with considerable graphics output. Many of these

people travel by train, e.g. Connecticut to New York; but van pools are increasingly being used and even mandated by government air pollution agencies all over the U.S. In LA, commuters often sit in a van for over two hours each day.

You speak of continuing a close association with HP because they're a great company. The HP that I knew was such a company. I hope today's HP is, too; but their decision to discontinue the Portable Plus computer and apparently abandon any future involvement in such a significant region of the computing spectrum has frankly left me wondering. My advice is to be loyal to them only if it's clearly in the best interests of the Personalized Software to do so.

In my career I've read dozens of technical publications, from *Physical Review* and *IEEE Proceedings* through *Trailer Life* and automotive shop manuals. None have consistently had as much good, useful information per page as the Portable Paper. Somehow, you've got to find a way to keep up the good work.

Rosemary sends her love to you and Rita. Our travels have taken us north, possibly into Canada around Lake Huron. Because of extensive involvement with the relative in Indiana, we have postponed our return visit to Fairfield until next Fall or Spring. We'll be looking forward to seeing you both again.

Joe Butterworth
987 Vermont #4
Oakland, Ca 94610

Unwise to Manufacture Your Own Portable

110 P+ PV LS/12

In regard to your publisher's message in the July/August Portable Paper. While I am not certain which direction you should take your company, I think it would be most unwise for you to manufacture your own portable.

First, look at the established laptop manufacturer's I can name off the top of my head.. Let see there's... Apple, Compaq, Dell, Epson, IBM, Leading Edge, Mitsubishi, NEC, Olivetti, Packard Bell, Panasonic, Sharp, Tandy, Texas Instruments, Toshiba and Zenith. There are probably at least twenty more I can't think of off the top of my head. My point is with all due respect you would be a no-name in the market.

Second, if you can find all the parts through OEMs you would not be a hardware manufacturer, just a component assembler. Since your hypothetical portable is built with other companies' parts you will have to add some real value to the final product. This could be a support nightmare alone.

Third, where do you plan to get your market share? IF every Portable Paper subscriber purchases one of these machines I doubt very much you would make a dent in your startup loans.

A very good point against making your own portable is the LS/12. Who made it? Zenith Data Systems. I've taken a good look at the LS/12 and as far as I'm concerned its a Zenith with the Hewlett-Packard name on it. Zenith still makes it, and the reason HP dropped it was either the public caught on to what it was and just went Zenith or (more likely) the market made it obsolete and Zenith is just using up its spare parts.

Another look at the history of this 286 might be enough to scare you out of the market. When it was released two years ago it carried a list price of five thousand dollars, today the list is down over one thousand dollars and sales are still slow at best. Can you afford to sit on a big inventory and cut your prices to the bone when Toshiba and Sharp undercut your price and more times than not come in with a better product to boot? If you are still not convinced take a look at the enclosed specifications guide for a Zenith Minisport, a OEM product made in Taiwan. In a poll of corporate satisfaction it was soundly beaten by Toshiba.

A final case might be Zenith's Turbosport 386 portable, an eight thousand dollar machine that died within six months and was last being sold at Damark International for around three thousand.

Perhaps your best bet is to offer a general Portable Paper which covers more topics of concern for all portable users as well as your current products.

Michael Seberg
Minneapolis, MN

Kermit, Version 3.0

110 P+ PV LS/12

Enclosed please find a disc containing MS-DOS Kermit Version 3.0 for the HP 110 and the Portable Plus. I have made a number of improvements to the parts of Kermit specific to these computers. An overview of the latest features is enclosed.

In addition to the latest binary code, the encolsed disc contains the documentation for MS-DOS Kermit 2.32. This should suffice for the 110/Plus version of 3.0. (Documentation for the IBM version of Kermit 3.0 is in a book from Digital Press.) I've also included source code for system-dependent modules.

I have submitted a slightly earlier version of this program to Columbia University, which holds the copyright.

I hope you and other users of the 110 and Plus fint Kermit 3.0 useful.

John Nyenhuis
North Chauncey
West Lafayette, IN 47906

[We will make Kermit 3.0 available, probably on the 1991 Subscribers Disk -- Hal.]

Printer, Disk Drive Accidently Switched On During Travel

110 P+

Just a quick note to see if any of your readers have a suggestion to solve a small problem I'm having while traveling with my Portable Plus, printer and disk drive.

It seems that while transporting my computer in and out of airplanes, the printer or disk drive sometimes are switched on (due to either jarring or side-to-side movement). I've tried various solutions, from chewing gum to adhesive tape, with no luck. The switch design lends itself to easy on-off action.

Perhaps one of your readers has experineced this problem and has determined a good solution.

Bob Margevicius
Service Cycle
23879 Madison St.
Torrance, CA 90505

Expand the Scope of the Portable Paper

110 P+ PV LS/12

I've been intending to respond for weeks to your request for advice column. Now that I'm sitting here waiting for Brian Teitzman to return my call so I can harass him about some equipment, this seems as good a time as any.

You've got my vote for continuing your efforts in the publishing business. There is a BIG NEED out there for information, particularly about Portables and 150 systems, and you are the best positioned in the country to supply it. The idea of expanding into HP printers and other peripherals strikes me as an outstanding one and could include plotters, digitizers, scanners, OCR systems and CD-ROM technology.

Your present publications tend to focus on a very narrow field. Perhaps it's time to broaden their scope, as you did with the Portable Paper by including all of the HP machines. Perhaps the answer is not to have a bunch of little publications but a broader publication. The Portable Paper is broad enough to include all portables and everything under the sun they can connect to. Even though all of my stuff is HP, I'd still like to hear about UltraLites and how they compare, in hopes I will learn something about how to use my HP better.

Another thing I would urge you to consider is reprocessing some of the ore you've already mined, so to speak. You've got a potential mother lode in all of the tips and routines for Portables you've published over the years, which could be collected and published in a "Best of...," "Son of...," "Return of..." series. I assume,

of course, you were planning to do this all along and that's why you saved all of your old Portable Paper copy on disks, right? The annual index is great as far as it goes, but it's a hassle to dig back years to find V3:2:14-16 when I need to know something. Here are some specific titles you might consider:

- Portable Plus Tips and Routines
- Portable Program Storehouse (collecting all of the Through the Looking Glass features) The Portable Connection: HPIL, HPIB and Serial connections to other devices
- Portable Products Catalog: extended descriptions of programs for Portables and their capabilities and lists of other products by category that will work with Portables.

The HP 150 System: What You Need to Set One Up. There's a crying need out there for a booklet of this type. I don't mean an operating manual; I mean a guide to what an HP 150 is and does and what the basic components are that make up such a system. What kinds of disk drives are out there? How do you tell a HP 150A from a B, C, D, etc., and what difference that makes, the different DOS versions available and how the 150 differs from the IBM-PC standard.

The final offering, obviously, is a pet peeve of mine. Hundreds of companies around the country are sending out surplus 150 systems without manuals or instructions of any kind and people are buying them and not knowing what to do with them. I would be happy to help you guys put something together on this, and I think it would help you sell a lot more HP 150's and associated products.

In summary, it seems to me there's a ton of stuff to write about out there. There's even more HP stuff on the CompuServe HP bulletin board that could be collected with their permission and published. I'd hell of a lot rather spend $10 pawing through a book for answers than $10 for 10 minutes to flounder around in their bulletin board.

For that matter you might want to consider setting up your own BBS to sell software and other products. I know they are a pain in the ass -- I ran one for the local clubs for a couple of months -- but you've got enough bucks to do it right and enough of a customer base to support it, along with the rich trove of information from back issues to plug into it.

Just some thoughts. I'd love to collaborate with you on any of the above if you're short-handed.

Jack Swanson
12620 Manzanita Rd. NE
Bainbridge Isl., WA 98110

"NICAD" a Registered Tradmark

110 P+ PV LS/12

Attached is a copy of a new product announcement in which you use the term "NICAD" as a descriptive term for nickel cadmium batteries. I am writing to inform you that use of the term "NICAD" (spelled in any form) is a violation of a tradmark owned by SAFT America Inc. SAFT owns this trademark under registration No. 721-248 in the United States patent office originally filed by Gould, Inc. on September 12, 1961, and renewed on September 12, 1981, and sold to SAFT on March 31, 1982.

I'm sure you can understand the importance of trademarks and realize that we must make every effort to protect ours. Therefore, I am requesting that you make arrangements to change your future copy by substituting the generic terms "nickel cadmium" or "NiCd", or by indicating that SAFT is the owner of the trademark.

If you should have any questions or comments regarding this matter, please do not hesitate to contact me. Thank you for your cooperation.

Marsha B. Dukes
SAFT AMERICA INC.
711 Industrial Boulevard
Valdosta, GA, 31603-1886

[SAFT manufactures nickel cadmium batteries for a wide range of applications. Thanks for keeping us accurate -- Rich.]

Glad Help Available for HP's Portables

110 P+ PV LS/12

Thank you for letting me know that somewhere on the globe there is help for HP's out-of-date portables. When I sent my request to Personalized Software (PS) last year (I got the address from an old copy of HP Communicator), I had little hope of any response! But, alas, out of the blue a copy of a magazine devoted entirely to the machines I was considering an obsolete buy. The local HP distributor could not (would not?) help when I requested software for the Portables (two 110's and a Plus). Enough of that; I'm only glad there is still software and help available.

I am still trying to come to grips with all the things I always wanted to know about the Portables. This is while trying to read all 26 copies of the Portable Paper at once. I was trying to read them all in just under two days, marking all the relevant articles I want to come back to. But when I started again with V1N1, I began to realize why you only publish the PP every second month (in addition to all your explanations about economics and other real-life hurdles most of us try not to think about) - there is just too much information hidden in the articles. It was (is) also interesting to read the "history" of the Portables: the suggestions from users, speculation about HP's future actions

(Letters continued on page 36.)

THE PORTABLE PAPER
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110% Making More of Your HP Portable

by Hal Goldstein

Portable Plus Accessories Off HP Price List -- Most Still Available Through Personalized Software

[It's official. HP has removed all Portable Plus accessories from its Price List. However, in most cases Personalized Software has like new and refurbished HP Portable equipment available. Here is the official HP notice.]

"The Portable Plus was discontinued by HP in September, 1989, and entered a five-year support life. Effective September 1, 1990, the following accessories will be removed from the Corporate Price List:

REMOVED AS OF SEPTEMBER 1ST, 1990

P+

Product Number	Description
45504K Opt. 400	MemoMaker/Time Manager
45539K Opt. 400	Lotus 123, v 2.01 ROM
45555K Opt. 400	Executive Card Manager
82863K Opt. 400	Reflections 1
82863KD Opt.400	German Executive Card Manager
82866KF Opt.400	French Executive Card Manager
82866KZ Opt.400	Italian Executive Card Manager
82973A	HP-IL Interface Card
82982A	128K Software Drawer
82992A	One MB Software Drawer
9114B	Battery-Powered Portable Disk Drive
9114B Opt. 013	Portable Disk Drive (European)
9114B Opt. W03	Warranty Upgrade. "

■

Modify Keyboard for High-Speed Typing

110

P+

Carefully modify the Teflon plunger of each key to increase the speed of your HP-110 and Portable Plus keyboard.

By Byron Rigby

Your readers may be interested in a modification that can easily be made to the keyboard of the HP-110 Portable and the Portable Plus. The purpose of the modification is to make the keyboard more sensitive and suitable for fast typing and word processing. I owe this tip to a colleague from France, an excellent high-speed typesetter.

Carefully lift off one of the alphanumeric keys, using a penknife or other thin blade. The key will resist coming off, but prying first one side, and then the other, should pop the key off. With the key removed you should see a small, white Teflon plunger sitting in a black square.

Examine the Teflon plunger carefully (see diagram below for a blown-up view). The plunger has a raised cross on the top that fits into the underside of the key you just removed. At each end of the plunger there is a small rectangular tab that slides up and down in the grooves on the left and right side of the black square the plunger sits in.

You will also see a narrow projection on the plunger pointing towards the screen and contacting the brass spring electrode that makes the final electrical contact on depressing the key. (An identical functionless projection is found on the user side of the plunger.)

You will see that the screen-side projection (and the identical functionless projection) is sloped in such a way that when you depress the key, the brass spring electrode is allowed to come nearer to, and finally contact the other brass electrode, thus closing the circuit and completing the keystroke.

If this projection on the Teflon plunger can be made to slope more, the brass spring electrode will make contact with the other brass electrode sooner (when the key is depressed only a little way). This improves the keyboard considerably for those who do a lot of word processing, and who have a light keyboard touch.

STEPS OF MODIFICATION

You will have to follow these steps for each key on the keyboard. You may not want to modify some of the less frequently used keys like the function keys, Esc, Del, etc.

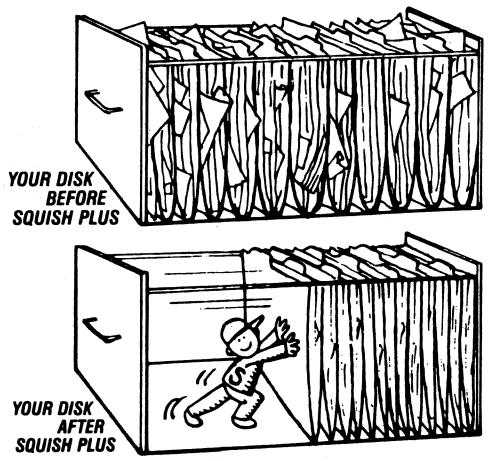
1. LIFT THE TEFLON PLUNGER OUT -- Use a fine pair of needle nosed pliers. Be careful and don't let the small spring under the plunger fly out. You'll have a hard time finding it on the floor.

2. PARE DOWN PROJECTION ON THE PLUNGER -- Use a sharp knife (Xacto or straight razor work fine) to pare down the projection so that it slopes more steeply on the top (see diagram below). This should be done so that in the undepressed position of the key, the brass spring electrode is still held away from contacting the other brass electrode.

   The cutting or paring increases the angle of the projection so that the moment the Teflon plunger is depressed, the brass spring electrode more rapidly approaches and makes contact with the other electrode.

New software breakthrough!

50% more file space for as little as $89.95!



SQUISH PLUS "compresses" your files so they take up less disk space!

- ***Easy to use—if you can save a file, you already know how to use SQUISH PLUS!***
- ***A must for every HP Portable owner—ROM Backup version especially valuable if you use a Portable Plus!*** ***(Sorry, SQUISH PLUS doesn't run on the HP110.)***

It isn't often we find a program that's a must for every portable user, but Squish Plus is just such a program.

Squish Plus lets you increase your disk storage space by 50% or more for as little as $89.95—without having to install any hardware or learn any new commands.

Squish Plus compresses files, saving them much more efficiently than DOS. For example, a word processing file of 50K might only take 30K using Squish Plus.

COULDN'T BE EASIER!

To use Squish Plus, you simply add a new drive letter to your system (for example, e:). If you wish, the new "drive" can be password protected.

Then, whenever you save files to the new "drive," Squish Plus compresses them automatically. When you retrieve a compressed file, Squish Plus automatically expands it to its normal size.

The saving in disk space is enormous: Squish Plus compresses data files (spreadsheets, text documents, databases) by 30-70%, and compresses program files by 5-25%. On the average, *you will increase the amount of data you can store on a disk by 50% or more!*

Note: All your other software can use the compressed data *as is.* There are no new commands to learn. You set up directories and perform all file operations—save, retrieve, copy, rename, backup, etc.—the same way you always do. (File backup takes up fewer disks, of course, and is significantly faster.) You can even use the Norton Utilities "Undelete" program to recover compressed files that have been deleted!

RECOMMENDED FOR:	
HP110 Portable	
Portable Plus	●
Portable Vectra	●
HP150	●
IBM PC and compat.	●
Available on ROM Backup for the Portable Plus	

Initial set up is easy too. There is no need to reformat or repartition your present disk. All you do is install Squish Plus as a "device driver." (You don't even have to know what that means. The manual—one of the best we've seen—walks you through the procedure in 5 minutes.)

ANY DRAWBACKS?

Other file compression programs impose a speed penalty. But Squish Plus is so efficient *there's virtually no loss of speed*—especially on the Portable Plus—except perhaps for a slight additional wait with some of your program files and largest data files.

Other file compression programs also set aside a significant amount of internal memory space for file decompression. But Squish Plus uses only 36K of memory for everything.

(Portable Plus users may need to increase internal [main] memory by as much as 36K. On the Portable Vectra and LS/12 Laptop, Squish Plus simply borrows 36K from the 640K of memory that's built in.)

WHAT ABOUT DISK SPACE FOR THE PROGRAM ITSELF?

The files on the Squish Plus disk total 139K, including several Squish Plus utilities.

Portable Plus users can get by with just 54K by eliminating all but two essential Squish Plus program files. (You can even reduce your Edisk space requirement to zero if you're willing to disable PAM and load Squish Plus from an HP9114 each time you reboot).

A better alternative—and the one we recommend—is to purchase Squish Plus on ROM Backup (see box below).

Whatever computer you use, *there is no other way to expand your file storage space that is as easy or economical as Squish Plus.* Order your copy at no risk today.

	Retail Price	*Subscriber Price*
Squish Plus for IBM PC compatibles	**$99.95**	**$89.95**
	PRODUCT NO. SQ12NS	
Squish Plus for Portable Plus	**$129.00**	**$99.95**
	PRODUCT NO. SQ11NS	
Rom Backup Package (includes Squish Plus for Portable Plus on disk and two 64K Backup ROMs)	**$264.00**	**$234.95**
	PRODUCT NO. SQ11NK	
Squish ROMs (Must own Squish Plus for Portable Plus for each ROM set purchased)	**$135.00**	**$135.00**
	PRODUCT NO. SQ12NR	

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See order form for details.

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IMPORTANT MESSAGE FOR PORTABLE PLUS USERS

Special Portable Plus version

The authors of Squish Plus have worked with Personalized Software to create a customized version that runs on the Portable Plus. *This version is available only from us.* Be sure you specify "PORTABLE PLUS VERSION" when you order.

Buy Squish Plus on ROM!

With disk space at a premium in the Portable Plus, the best way to buy Squish Plus is on ROM Backup.

Our exclusive ROM Backup package includes the Squish Plus disk, and two ROMs—128K total—that contain all the Squish Plus files (except for one that you'll never need).

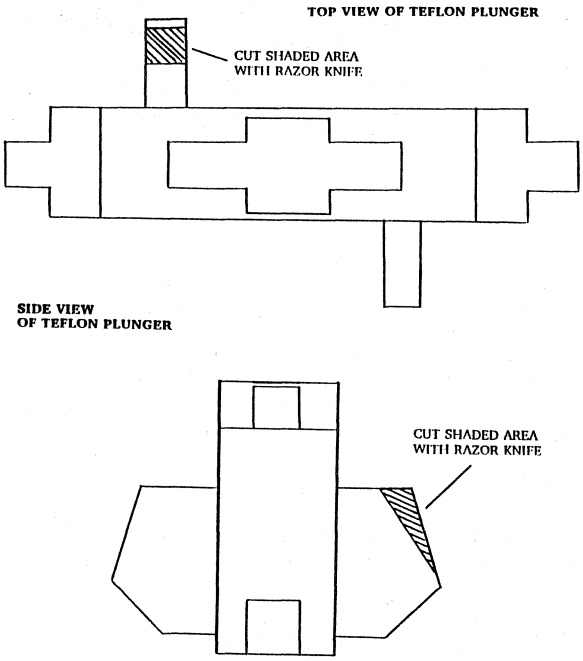
With Squish Plus on ROM, all the useful Squish Plus utilities will always be available, and you won't have to give up any disk space at all.

CALL NOW!

515-472-6330

3. REINSERT THE TEFLON PLUNGER CAREFULLY -- Use the needle nosed pliers to reseat the plunger into the black box you removed it from. Make sure that the projection you pared down is pointing towards the screen when you reinsert the plunger.

4. PRESS THE KEY BACK ON THE TEFLON PLUNGER.



IF YOU MAKE A MISTAKE ...

The good part about this procedure is that if you don't like the results, you can undo the deed. The functionless projection on the other side of the plunger is sloped as the other projection was before you pared it down. You need only remove the Teflon plunger, rotate it 180 degrees, and reinsert it in the black plastic square. The functionless projection on the user's side will then become the active projection moving the brass spring, while the projection you have just modified will become the functionless element on the user's side. Replace the key and it should feel as it did originally.

A WARRNING! The Teflon plunger cannot be bought individually. If you modify both projections on a plunger and don't like the results, you're stuck with it unless you buy a new keyboard, or manage to salavage a plunger from a discarded keyboard. ■

[Byron Rigby is an Australian subscriber to The Portable Paper. Byron is also the Governor General of the Transcendental Meditation and TM Sidhis Program in Australia -- Hal.]

New Calculators/Printers From HP

110 P+ PV LS/12

The Corvallis, Oregon division of Hewlett-Packard gave birth to a great laptop, the Portable Plus. Unfortunately they are no longer occupied with laptops. However, they are still producing great equipment, including The Business Consultant II (HP 19BII, retail price $175) and the Thermal Strip Printer (HP 82240B, retail price $135).

■ The Buisness Consultant II -- is HP's top-of-the-line financial calculator. The calculator uses HP Solve, instead of key stroke programming, to customize its operation. It stores and sorts names, phone numbers and addresses. Menus and prompts are available in six built-in languages. The calculator operates in reverse Polish notation (RPN) or algebraic-entry mode.

The Consultant II has graphic capabilities, a time management feature that includes an appointment menu with clock and alarms, cash-flow analysis capability, and list-based statistics and forecasting.

The Consultant II offers a four line, 23-character dot-matrix LCD, 128K ROM, 6.5K RAM, and uses three replaceable N-cell batteries.

■ The HP Thermal Strip Printer -- links to the Business Consultant II by an infrared interface. The printer can operate up to 18 inches away from the calculator by reading a flashing infrared LED at a 940-nM wavelength.

The unit features an 8-dot print head that can provide 24 columns of characters with space between them. A 200-byte print buffer holds eight full 24-character lines, and the unit features unidirectional printing.

The HP 82240B weighs one pound, with full paper roll and four AA batteries (AC adapter optional). It measures 3.6 x 7.3 x 2.5 inches. ■

Norton Utility -- NU.COM (NU110.COM)

By: Thomas M. Morgan

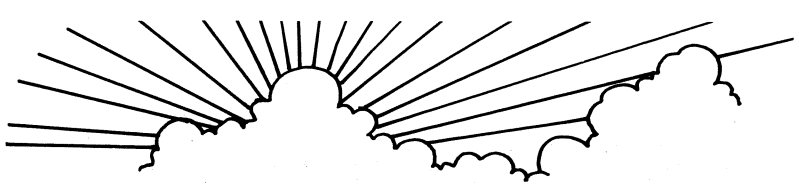
(NU110.COM is a version of NU.COM that works on the HP 110. It comes with Norton Utilities when you purchase it from Personalized Software -- editor.)

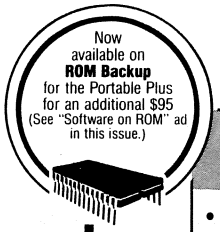
110 P+

NU110.COM, when run in its original form, requires the switch **/D2** in the command line to avoid displaying a mess. It also requires changing to the ALT mode to allow selection of files by pointing. When exiting NU110.COM, HP mode needs to be reset and inverse video turned off. These functions can be handled by calling NU110.COM from a batch file that contains the necessary Escape Sequences before and after the call to NU110.COM and the switch can be included.

To avoid the need for the batch file, which slows down loading and uses space, the following patch to NU110.COM performs all of the required functions internally.

To patch NU110.COM, copy it to NU.COM, then either with DEBUG, or NU110, make the following changes. To be sure that the correct bytes are being changed, the





The Editor II It's way beyond MemoMaker!

You won't believe all the word-processing features this $129* program contains—and it takes up less than 40K of memory!

*** (only $99.95 for Portable Paper subscribers)**

NEW VERSION!
Now has line and block centering, powerful macros, and new printed tutorial!
Easy to upgrade from Version I.

By Hal Goldstein

Let's face it: MemoMaker is an adequate word-processor, but it has its limits. No search and replace. No simple way to merge files. No destructive backspace key. (To delete the last character you have to use the left arrow key and the deletion key[s].) No compressed or expanded printing. No. . .—but why go on? If you use MemoMaker, you probably have your own list of things you wish it could do.

Well we have good news! Now there's an easy-to-use text editor that runs on the Portable and Portable Plus that will satisfy almost every item on your wish list. And the program comes with a built-in bonus: It also runs on the HP 150, IBM PC, and HP Vectra, which means that **now you can use the same program and files on your desktop that you use on your Portable.**

The program is called THE EDITOR II. It does everything MemoMaker does plus a heck of a lot more. And you don't have to go to the expense of buying WordStar (for the Portable) or MS Word (for the Plus) to go beyond MemoMaker's capabilities.

THE EDITOR II's most valuable features are listed on the chart to the right. It's quite a list, isn't it? To me, THE EDITOR II is a real blessing. I use it daily instead of MemoMaker, and I've silently given thanks to its author, Ed Gilbert, many, many times. Just a few minutes with THE EDITOR II (that's all it takes to be up and running) and I think you'll be a fan of his too.

In addition to the great features listed to the right, there are six more I especially want to emphasize:

1. THE EDITOR II's Lotus-like menus make it incredibly easy to use.
2. THE EDITOR II creates ASCII files, which means you can send your files to and from almost any other program or computer without special formats or codes.
3. THE EDITOR II will automatically back up your files to protect you against mistakes: When you save a file, THE EDITOR II saves not just the current version, but the previous one as well.
4. THE EDITOR II takes up less than 40K of memory.
5. THE EDITOR II loads and saves files and executes commands exceptionally fast.
6. THE EDITOR II comes with a well-written reference manual and a step-by-step tutorial.

RECOMMENDED FOR:	
HP110 Portable	●
Portable Plus	●
Portable Vectra	●
HP150	●
IBM PC and compat.	●
Available on ROM Backup for the Portable Plus	

Even in the desktop market, **it is difficult to find a word processor with this many useful features at this low a price.** For the Portables, THE EDITOR II simply can't be beat. See for yourself: Order your copy, risk-free, today.

THE EDITOR II on disk $99.95
Portable Paper subscriber price . . $79.95
PRODUCT NO. ED11NS

ROM BACKUP version $194.95
(THE EDITOR II on ROM and disks)
PRODUCT NO. ED12PP

For users of Version I or SuperROM:

EDITOR II Upgrade Kit on disk . . . $35.00
PRODUCT NO. ED14NS

Upgrade Kit on ROM and disk $58.00
PRODUCT NO. ED15NR

PV users: Be sure to indicate "PORTABLE VECTRA" on your order so we can send you proper disk format.

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Use enclosed postage-paid order form or send check or credit card information (#, exp. date, signature) to:
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P.O. Box 869, Fairfield, IA 52556 515 472-6330

THE EDITOR II gives you all these great text-editing features and more:

- **Search and replace.**
  Just tell THE EDITOR II what word or phrase to look for, and it will display each occurrence and/or replace the occurences either selectively or globally.
- **Edit two files at once.**
  THE EDITOR II will display two separate portions of text at the same time, one above the other. You can view and edit two parts of the same file—or even two different files—simultaneously.
- **Backspace delete.**
  You can erase the last character with a single keystroke.
- **Block and line centering.**
  THE EDITOR II lets you center blocks and lines of text with a few simple keystrokes.
- **Powerful macros.**
  Store any sequence of keystrokes and play it back at the touch of a single key. Macros can be edited, deleted, stored in files—even autoloaded on startup. THE EDITOR II comes with over two dozen macros to get you started.
- **No limit on file size.**
  If you're an HP110 Portable user, you're no longer confined by MemoMaker's 819-line limit. You can have as large a file as internal memory allows.
- **File merge.**
  You can merge two or more files together with ease.
- **Compressed and expanded.**
  You can imbed control characters in your text to tell your printer to print all or part of your text compressed, expanded, bold, underlined, or whatever else your printer can handle.
- **Unlimited line length.**
  Your files are no longer limited to 80 characters per line. This means, for example, you can print 132-character lines on your ThinkJet in compressed mode.
- **Lines per page.**
  You can specify the number of lines per page, using the control codes required by your printer.
- **Easy in, easy out.**
  You can exit from THE EDITOR II, run another program, then type a one-word command and be back in THE EDITOR II exactly where you left off. This includes exiting DOS—which means you can delete, copy, and rename files while running THE EDITOR II.
- **Right justification and automatic paragraph indent.**
  A simple command right-justifies your text and automatically indents your paragraphs however many spaces you wish.
- **Undelete.**
  A simple command will undelete the last line or block of text deleted.
- **Upper/lower case conversion.**
  Another simple command lets you change between upper case and lower case without having to retype anything.

In terms of useful features per dollar, THE EDITOR II is a truly exceptional buy. I urge you to try it. Order yours today.

Hal Goldstein

The Formatter

THE FORMATTER gives you advanced formatting capabilities that even THE EDITOR II can't handle—like: multi-line headers and footers • automatic hyphenation (you can even add your own words to the built-in dictionary) • user-specified page length and line length • automatic page numbering • tables and charts • table of contents generation • and more.

THE FORMATTER works by imbedding special formatting codes into your EDITOR II, MemoMaker, or other ASCII text files. You can customize THE FORMATTER for almost any printer.

Special combined offer—
SAVE $30:
THE EDITOR and THE FORMATTER together—
Only $119.95 total (Portable Paper subscribers only)

Note: The user manual itself is a challenge, and no technical support is available. We therefore recommend THE FORMATTER for strong computer users or those already familiar with text formatters.

If you need any of the features listed above, and if you're willing to spend the time it takes to learn the commands, THE FORMATTER is for you. Order your copy, risk-free today.

THE FORMATTER $59.95
Portable Paper Subscriber price $49.95

PV PV users: Be sure to indicate "PORTABLE VECTRA" on your order so we can send you the proper disk format.

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original bytes are shown below on the line above the replacement bytes. When using NU110 (or NU) to change a file, remember that the sectors may not be stored in order in adjacent disk space. In this patch, this will not cause a problem as all changes are in the first sector.

```
DEBUG  0100 0101 0102 0103 0104 0105 0106 0107 0108 0109 010A 010B
NU110  0000 0001 0002 0003 0004 0005 0006 0007 0008 0009 000A 000B
NU-old EB   3E   20   43   6F   70   79   72   69   67   68   74
NU-new FC   BE   3A   01   BF   80   00   B9   05   00   F3   A4

DEBUG  010C 010D 010E 010F 0110 0111 0112 0113 0114 0115 0116 0117
NU110  000C 000D 000E 000F 0010 0011 0012 0013 0014 0015 0016 0017
NU-old 20   31   39   38   34   2C   20   31   39   38   35   2C
NU-new BA   2A   01   B4   09   CD   21   EB   2B   0E   1F   BA

DEBUG  0118 0119 011A 011B 011C 011D 011E 011F 0120 0121 0122 0123
NU110  0018 0019 001A 001B 001C 001D 001E 001F 0020 0021 0022 0023
NU-old 20   31   39   38   36   2C   20   50   65   74   65   72
NU-new 30   01   B4   09   CD   21   CD   20   5B   4E   55   2D

DEBUG  0124 0125 0126 0127 0128 0129 012A 012B 012C 012D 012E 012F
NU110  0024 0025 0026 0027 0028 0029 002A 002B 002C 002D 002E 002F
NU-old 20   4E   6F   72   74   6F   6E   20   41   6C   6C   20
NU-new 48   50   31   31   30   5D   1B   26   6B   31   5C   24

DEBUG  0130 0131 0132 0133 0134 0135 0136 0137 0138 0139 013A 013B
NU110  0030 0031 0032 0033 0034 0035 0036 0037 0038 0039 003A 003B
NU-old 72   69   67   68   74   73   20   72   65   73   65   72
NU-new 1B   5B   30   6D   1B   26   6B   30   5C   24   03   2F

DEBUG  013C 013D 013E 01F7 01F9 01FA 01FB 01FC 01FD 023A 023B
NU110  003C 003D 003E 00F7 00F9 00FA 00FB 00FC 00FD 013A 013B
NU-old 76   65   64   74   C6   06   A1   00   2F   CD   20
NU-new 64   32   0D   EB   E9   19   FF   90   90   EB   BD
```

■

PORTABLE POWERHOUSE

(~~$3000~~ original retail)

ONLY $495!

($795 with portable printer and disk drive)

Hewlett-Packard's HP110 Portable

Includes word processor, Lotus 1A, built-in modem, communications software—and a ONE-YEAR GUARANTEE!

Hewlett-Packard's HP110 Portable was way ahead of its time.

An MS-DOS machine (version 2.11), the HP110 stores programs and data on ROM chips. The rugged unit weighs only 8 pounds, has a 16-line screen, and has enough available memory for more than 80 pages of word processing text.

With up to 20 hours of continuous use per battery charge, the HP110 is ideal for business travel.

At only **$495 used**, our HP110s make great gifts for students, friends, and spouse. **Note:** With most other computers, used means worn out. But there's little that can wear out in an HP110, because there are no moving parts except for the keys.

Every HP110 we sell is fully tested and is **guaranteed against malfunction for one full year.** All units come with a **30-day no-risk trial** and **free technical support**. For details or to order, call **(800) 373-6114.** Call now—offer good only while supply lasts!

ALSO:
Like-new Portable Plus: only $1295!
(original retail: $2795)
Used: $895

We also publish the HP Portable newsletter, and offer more than 100 software programs that make the HP110 and Portable Plus even more powerful.

Personalized Software INC.

The worldwide HP Portable experts

P.O. Box 869, Fairfield, IA 52556 (515)472-6330 FAX:(515)472-1879

Portable Technology Update

110 P+ PV LS/12

We use the Portable Technology Update as a reference for some of the articles we write in *The Portable Paper*. Portable Technology Update focuses exclusively on the portable industry. It is supported by subscription ($250 for one year, quarterly subscriptions and single issues also available) and has no advertising. Data is organized by category in a tabbed, three-ring-binder format and updated monthly. Portable Technology Update provides information on the following topics:

- New Product Introductions -- summary of new products introduced during each month;
- Industry news -- events affecting the portable industry;
- Application case studies -- how specific companies are using these products;
- In-depth product reviews -- product comparisons, reviews, ratings and reports;
- Industry directory -- names, addresses, and phone numbers of the manufacturers;
- Product listings -- Model name, description and price of portable products;
- Product specification sheets.

Subscribers to Portable Technology Update also receive free telephone support, complimentary passes to shows and conferences, invitations to participate in laptop seminars, opportunities to beta test new products, invitations to participate in focus groups. For further information contact:

Portable Technology Update
125 Beach 124the St.
Belle Harbor, NY 11694
Phone: 718-318-3880
FAX: 718-318-0865 ■

Two New Modems

110 P+ PV LS/12

Vocal Technologies, Ltd., of Santa Clara, California has introduced two compact modems that may be of interest to some HP Portable users:

STOWAWAY 2400 -- SMALL, LINE-POWERED MODEM

The Stowaway 2400 is a small, Hayes compatible, line-powered modem that connects to the serial port of your portable. It gets the power it needs from the computer and telephone it is attached to. Batteries, or an internal AC adapter is never needed.

The Stowaway is a little bigger, but weighs less than a standard 25-pin adapter. It uses the industry standard AT command set including the latest extension. Stowaway 2400 also has an internal non-volatile memory for saving the modem configuration and up to four phone numbers. Other features include the following (see page 12):

USED HP PORTABLES AND PERIPHERALS

USED HP110 Portables
Portable Pluses
HP150s
HP9114 Disk Drives
HP-IL ThinkJets
HP-IL Converters
Video Interfaces
HP Software
HP ROMs
and more

(If you've bought a 1- or 2-megabyte RAM drawer, we'll even buy your old RAM drawer and extra memory!)

We buy them.

No longer using your HP Portable or peripherals? Turn them into cash through The Portable Equipment Exchange. Prices fluctuate, so call us for current figures.

We sell them.

Buying used HP equipment makes sense. You know HP quality! Even used HP machines can serve you well for years. Call for current prices.

We guarantee them.

Any used item you buy from us can be returned within 30 days for a full refund. In addition

ONE-YEAR GUARANTEE
(parts and labor)
on all used equipment!

For good buys on used–and new–HP equipment, see our 4-page brochure enclosed with this issue.

(515) 472-6330

The Portable Equipment Exchange
—a division of Personalized Software
P.O. Box 869 Fairfield, IA 52556

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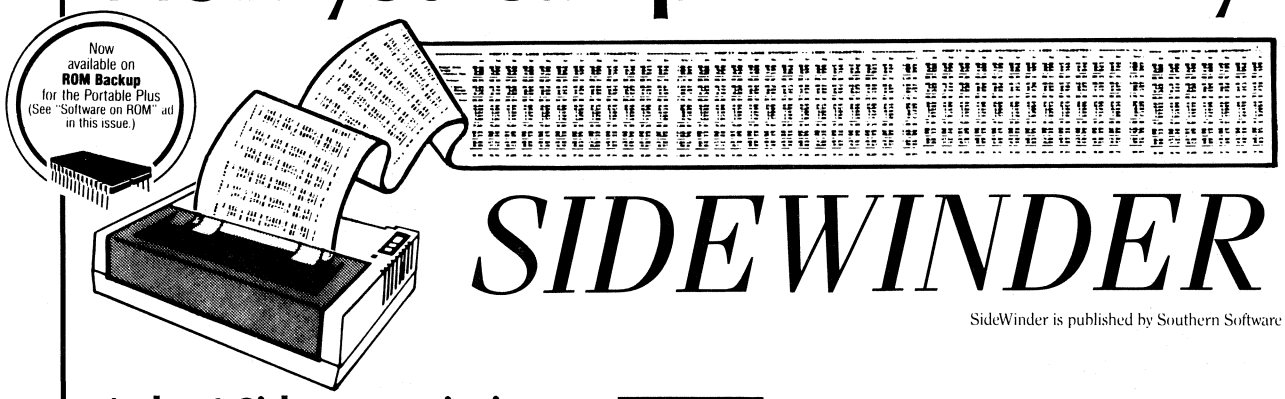
No more cutting and pasting- Now you can print it sideways!



SIDEWINDER

SideWinder is published by Southern Software

At last! Sideways printing for the HP Portable, Portable PLUS, and ThinkJet!

(And the HP150, Vectra, IBM PC, MS-DOS computers, and most HP graphics printers.)

RECOMMENDED FOR:	
HP110 Portable	●
Portable Plus	●
Portable Vectra	●
HP150	●
IBM PC and compat	●
Available on ROM Backup for the Portable Plus	

It's called SideWinder, and it's perfect for Lotus 1-2-3 print files, MemoMaker files, or any other text (ASCII) file that's too wide for a normal page.

Just type in the file name, and SideWinder does the rest, printing up to 53*rows *sideways* - for as long as your paper supply lasts. You'll never need to cut and paste again!

SideWinder's high-quality graphics characters are indistinguishable from ordinary characters, and SideWinder prints just as fast as your ThinkJet can.

In addition, a built-in mini text editor lets you get inside your print files and easily create double-width characters and underlines.

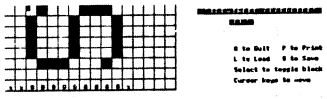
SideWinder $69.95
$59.95 for Portable Paper subscribers

PRODUCT NO. SW11NS

SideWinder 1.01 owners may upgrade to current version 2.01, which supports 8 chars/inch, by sending Personalized Software $7.50 or by mailing a self-addressed $.39 stamped envelope and the SideWinder master disk.

OPTIONAL EXTRAS: Southern Software of New Orleans, creators of SideWinder, have also created two companion utilities that work only on The HP Portables:

SideChar lets you create your own sideways characters.



Simply fill in a grid on your Portable to modify SideWinder's built-in characters. . . create italics. . . Hebrew letters. . . integral signs. . . whatever sideways characters you wish.

Sketch & Print lets you make line drawings on your screen using the cursor and function keys.

It's a lot like those Etch/Sketch toys you played with as a child. (Actually, it's even better because you can draw not just horizontal and vertical lines, but also *diagonals* with a single key.) Sketch & Print also lets you print - and save - anything you draw on the screen.

$10 for both utilities when purchased with SideWinder

For a *complete* graphics software program, see ad for "Sketch" in this issue.

Order form and guarantee are on inside back cover or send check or credit card number to Personalized Software, PO Box 869, Fairfield IA 52556 (515) 472-6330.

*105 rows for QuietJet Printer

Lotus and 1-2-3 are registered trademarks of Lotus Development Corp.

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- Operates on all telephone lines;
- Line powered -- no batteries or AC adapter;
- 2400, 1200 and 0-300 bps;
- Automatic fallback;
- Extended AT command set;
- Auto dial;
- Tone and Pulse dialing;
- 40-character command buffer;
- Non-volatile memory;
- One year warranty.

STOWAWAY 9624 COMPACT, BATTERY POWERED FAX/MODEM

The 9624 combines a conventional 2400 bps data modem with a 9600 bps fax modem in a single 8 oz, 2.2" x 4.2" x 0.8" package.

The full, extended AT command set is provided with 2400, 1200, and 0-300 bps capability for data modem operation. The fax modem allows transmission and reception at 9600, 4800, 2400, and 300 bps.

Other features include the following:

- Automatic fallback;
- Hayes compatible;
- Auto dial/auto answer;
- Tone/pulse dialing;
- 40-character command buffer;
- Non-volatile memory;
- GROUP III compatible
- FAX support software;
- One year warranty.

Stowaway 2400 (retail $295) and Stowaway 9624 (retail $645) were developed by Vocal Technologies, Ltd. For more information please contact:

Vocal Technologies, Ltd.
3032 Scott Boulevard
Santa Clara, CA 95054
Phone: 408-980-5181
FAX: 408-980-8709 ■

110 P+ PV LS/12 Portable Computing & Communications Exposition and Conference

Billed as an exposition dedicated to laptop and portable products, this year's Portable Computing & Communications Exposition and Conference will be held at the Sheraton Centre Towers in New York, September 26-27. The focus this year will be on software applications for sales & marketing, wordprocessing, information management, connectivity, spreadsheets, graphics, etc. The exposition will also focus on the communication of portables, specifically on modem, facsimile, and cellular phones.

Keynote speaker will be Randy Fields, chairman of the board of Mrs. Fields Inc. Mr. Fields will discuss how the changing emphasis on time management, organizational patterns and applications development are making portable computers the business for the 90's -- surpassing the impact of desktop computers.

PC&C estimates an attendance of 3,000. For registration information call 1-800-545-3976. ■

Technical Support Notes

By Hal Goldstein and Stephen Kelley

110 P+ PV LS/12 This past year Steve has been finishing up his PhD in Physics (and consciousness) at our local Maharishi International University, and working at Personalized Software part time doing technical support. Steve recently finished his Doctorate and is soon to begin work at the Texas Accelerator Center. I asked Steve to put together some notes for the next technical support person. These notes are interesting and I thought many readers would find some value in them. I have edited out most of the HP150 material.

BASICS OF TECHNICAL SUPPORT

Attitude constitutes 90% of technical support. Being friendly and understanding makes the customer feel good. To help, you must first listen and understand the customer's problem. Keep asking questions until you understand the problem. If the software and hardware is available on your desk, follow along with the customer on your machine. Some crucial information to obtain is:

- Name of computer;
- CPU type;
- Software being used, including version number and; where it is located (hard disk, floppies, ROM);
- Hardware configuration relevant to the problem (printer, disk drives).

Try to get a feel for the customer's level of computer literacy as you talk with him and aim your instructions to that level.

You should be familiar with DOS. The following DOS commands and topics are particularly important in technical support:

- DIR
- COPY CON
- CHKDSK
- FILE NAMES
- AUTOEXEC.BAT
- SUBDIRECTORIES (CD MD RMDIR)
- COPY
- TYPE
- EDLIN
- BATCH FILES
- CONFIG.SYS

PROCESSORS

Familiarity with typical hardware setups is also important. We support six types of processors:

1. HP-110;
2. Portable Plus;
3. HP-150;
4. Vectra LS/12;
5. Vectra CS;
6. NEC UltraLite.

PV users: Please subtract $10 from subscriber price (since we don't have to send you additional customized disks or extra documentation). Be sure to indicate "PORTABLE VECTRA" on your order.

CONDOR 3 and CONDOR, JR.

Database management made easy!

WHAT THE EXPERTS SAY:

"If you want a database you can use immediately (without even opening the manual)...Condor 3 is the DBMS to buy."
—Jim Morgan, Data Base Advisor

"...a textbook example of what a database management system should be."
—James Perotti, PC Magazine

"...for a straight database, I'll take Condor."
—Jerry Pournelle, InfoWorld

If you have customer files, sales records, inventory, or lots of *anything* that you need to keep track of, you need a database management system (DBMS).

If you want a sophisticated DBMS that even a beginner can use, try Condor 3 or Condor, Jr.

Condor 3 runs on the Portable Plus, Portable Vectra, and HP150. Its smaller cousin, Condor, Jr., runs on the HP110 and Portable Vectra only. Both versions let you **set up a database in a single step**, simply by typing a picture of the input form right on your screen. You enter and modify data—or even revise the database structure—simply by typing right on the same form.

Unlike other database systems, you simply tell Condor **what** to do, not how to do it—and you tell it using simple, English-like statements such as LIST CUSTOMER BY NUMBER NAME STATE AND COMPUTE TOT SALES.TO.DATE.

As a result, it takes only one fifth the time to compute, display, sort, search, or report on your data using Condor as compared with other database systems such as dBASE III. Most users find they can create and begin to use their first database within minutes after opening the package.

Condor 3 (but not Condor, Jr.) is a fully **relational** DBMS. That means you can use Condor 3 to compare, select, and combine data from two or more files. Condor 3 also lets you create your own custom report formats. (Condor, Jr. includes a LIST command for limited report writing.)

You can transfer data back and forth from Condor 3 to Lotus 1-2-3 print files and other files not created by Condor.

Over 150,000 Condor programs are currently in use. We think the Condor people have done a fabulous job of packing an enormous amount of database power into an incredibly easy-to-use system. We urge you to try Condor 3 or Condor, Jr. at our risk today.

Condor 3 . . . . . $495.00
$379.00 for Portable Paper subscribers
PRODUCT NO. CR11NS

Condor, Jr. $99.00
$89.95 for Portable Paper subscribers.
PRODUCT NO. CR13NS

RECOMMENDED FOR:	Condor 3	Condor, Jr.
HP110 Portable		●
Portable Plus	●	
Portable Vectra	●	●
HP150	●	
IBM PC and compat.	●	●

MEMORY REQUIREMENTS

Condor 3 requires only 128K of memory to run. The entire program, including the report writer, fits in less than 360K. Since each command is in its own file, you can save memory space by deleting any commands you don't need.

Condor, Jr. is even more memory-efficient: the main program is only 25K, and you add individual 10K programs for each function you wish to use.

HPduette

It transfers files both ways between your Portable Plus and your desktop computer without an HP-IL card!

An HP-IL card inside your IBM PC or compatible computer lets you transfer files to and from your Portable Plus.

It's a good solution to the data transfer problem, *provided* you only use one desktop computer. But if you ever need to transfer data between your Portable Plus and someone else's desktop computer, you're stuck—or at least you were until now.

Because now there's a way to do it with software.

It's a program called HPDuette. Together with a special serial connecting cable that it comes with, HPDuette is all you need to transfer files at high speed both ways between your Portable Plus and any IBM PC compatible desktop.

RECOMMENDED FOR:			
HP110 Portable		Portable Vectra	
Portable Plus	●	HP150	
IBM PC and compatibles			●

HPDuette performs complete error checking during the transfer process to ensure data integrity. It handles multiple-file transfers, subdirectory transfers, and DOS "wild card" usage. It lets you use DOS commands such as type, list, rename, and erase without having to exit the program. And it transfers data *faster* than you can with an HP-IL card.

HPDuette is easy to use too. Simple menus and easy-to-understand help screens are available at all times.

For true convenience in file transfer to and from your Portable Plus, order HPDuette today.

HPDuette with cable for Portable Plus . . . $99.95
$89.95 for Portable Paper subscribers.
PRODUCT NO. DU11NS

HPDuette is a registered trademark of Platte River Associates, Inc.

HPduette comes with a serial cable and two disks; you load one disk into your Portable Plus and the other into the desktop.

HPDuette transfers data at 57,600 baud. To use HPDuette, you connect the 9-pin serial port on your Portable Plus to the serial port on your desktop computer using the serial cable that comes with the program.

60-DAY MONEY BACK GUARANTEE
See order form for details.

TO ORDER

Use enclosed postage-paid order form or send check or credit card information (#, exp. date, signature) to:
Personalized Software
P.O. Box 869, Fairfield, IA 52556 515 472-6330

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Questions concerning the Portable Plus and the HP-150 make up the majority of technical support calls.

The Portable Plus and the HP-110 are very similar computers. The Plus has RAM and ROM drawers which give it more capability than the 110. The 110 comes with four ROM applications: MemoMaker; Lotus 1-2-3; Terminal Commands; and DOS Commands. All these applications are documented in the 110 manual except Lotus which is documented in the HP-110 Portable Computer Lotus 1-2-3 User's Manual. In addition, Personalized Software sells software on disk for the 110 (see our Sales Book).

Setting up printers and disk drives is almost identical, and products are installed in PAM the same way.

Personalized Software's video tapes and the HP-110 and Portable Plus Owner's Documentation cover most aspects of these two computers.

INSTALLING AN APPLICATION ON PAM

110 P+ The following applies to either the 110 or the Portable Plus. Create a PAM.MNU file on the drive where the application files are located. Use COPY CON, or EDLIN, The Editor, or another ASCII text editor to do so. PAM.MNU consists of a set of two lines for each PAM application on the disk. The first line appears as a title on the PAM screen, and the second specifies the startup command for the .COM .EXE or .BAT file you wish to run.

Sample Contents of C:PAM.MNU where BASIC.COM and EDITPLUS.BAT are the files which start the two applications on drive C.

Basic
basic
The Editor
editplus

PRINTERS

110 P+ Printers may be classified according to their interface with the CPU. Most common interfaces are HP-IL, HP-IB, serial and parallel.

PV Thinkjet Printer

LS/12

HP-IB 2225A
HP-IL 2225B
Parallel 2225C
Serial 2225D

The first step to setting up a printer is to get it to print from DOS.

- CONNECTING THE HP-IL THINKJET PRINTER TO THE 110 OR PORTABLE PLUS -- first hook the printer up in the HP-IL loop. Then modify system configuration, set printer interface to HP-IL.

- CONNECTING A SERIAL THINKJET PRINTER TO PORTABLE PLUS/HP-110

  1. Connect serial cable, 9 to 25 pin HP (HP92221P) or Personalized Software (SC13NM) serial cable.
  2. Set all dip switches down.
  3. In datacom configuration (**f5** menu) set Serial to 9600,8,1,none,on,ignore,ignore,ignore.
  4. In system configuration (**f6** menu) set printer interface to serial.

- CONNECTING A SERIAL THINKJET PRINTER TO PORTABLE VECTRA OR LS/12 -- assuming COM1 is serial port:

  1. Place in your AUTOEXEC.BAT file the following two lines:

     mode com1: 9600,n,8,1
     mode lpt1:=com1:

  2. Connect the ThinkJet to the CS or LS/12 using the proper serial cable.
  3. Set all dip switches down.

- DESKJET
  Computer settings are the same when using the DeskJet as a serial printer. All dips should be down on the DeskJet.

- KODAK DIOCONIX PRINTER
  1. Set the side dip switches: number 3 up, the rest down.
  2. Set the front dip switches: numbers 3 and 9 up, the rest down.

TYPES OF TECHNICAL SUPPORT CALLS

Most technical support calls relate to one of the following three categories:

WHAT DOES THIS PRODUCT DO?
Often a customer wants more information about a product then the salesman can give him and will ask for technical support. Tell him what you can about the product, and if necessary look at the manual for details.

Example A: Will sidewinder work with my printer? Page 31 of the sidewinder manual answers this question.

HOW DO I USE THIS?
The manual will almost always answer the customer's question, but the manuals are hard for some people to understand. Follow along with the customer in the manual and also on your machine if the software and hardware are available. Don't be afraid if you don't know how to do something. Look in the table of contents and/or index to find what you need and you'll learn it along with the customer.

Example A: "I can't get ReadHP to work". Following the directions in the ReadHP manual you find the customer's PC desktop boots from drive C and the PC's B drive is a 3.5" floppy drive. The customer uses a double sided HP Portable floppy drive with his HP Portable.

You instruct the user to put the ReadHP disk in the B drive and issue the following command from DOS:

install c p b

After you have installed the software, reboot the system and observe the driver installation message that says physical drive B has been installed as logical drive D, format is HP double sided. Now the customer should be able to read from and write to an HP Portable or HP-150 disk inserted in his 3.5" drive as long as he addresses that drive as the "D" drive.

THIS PRODUCT DOESN'T WORK

This category is rare. Mostly, the customer isn't following the instructions. Lead them through and the problem will disappear. On occasion the physical product is defective. Apologize for the mistake and let the customer talk to Vicki about a replacement or refund.

PRODUCT INSTALLATION

Most products have an automatic installation on the 110, Plus and 150.

On the 110 and Plus, put the installation disk in drive C, press **f4** to reread disks, and then select the installation program from PAM. First select what disk to install the program, then specify whether you want a PAM item to automatically remove the application. See the documentation on INSTALLP in the DOS Tools manual to learn how to package a product for automatic installation on the 110 or Plus.

- LOTUS -- The default printer for Lotus is the parallel or HP-IL printer. To print from the serial port, GO /WGDPI, WORKSHEET GLOBAL DEFINE PRINTER INTERFACE, and set the printer to **2**, serial. You must then set the BAUD RATE, usually to **9600**. Then press **esc** to get back on menu level and press **u** to update the configuration file. To confirm your settings select **s** for STATUS: you will see the interface and baud rate settings.

- SHELP -- Put one of the following lines in your CONFIG.SYS file:

  device=a:\path\shelp.sys -- for SHELP on the Edisk.
  b:\super\shelp.sys or
  b:\aea\shelp.sys or
  b:\sw_shelp\shelp.sys -- for shelp on ROM.

  Reboot to enable SHELP (press **ctrl-shift-break**). To get into SHELP press **ctrl-shift-extchar**.

- SQUISH PLUS -- Make sure SQPLUS.SYS, ATTACH.EXE, and MKDISK.EXE are copied onto your Edisk. Then put the following line in CONFIG.SYS file:

  device=a:\path\sqplus.sys

  Put the following three lines in an AUTOEXEC.BAT file:

  cd d:\path
  attach e: a:\path\file.ext
  **cd **

  Create a squish disk with the following command:

  mkdisk a:\path\file.ext

  Reboot the system to put all this in effect. What this will do will be to create a drive E in which everything will be automatically compressed in the file A:\PATH\FILE.EXT. The drive and path referred to in the CONFIG.SYS and AUTOEXEC.BAT files is where the squish command ATTACH and driver SQPLUS.SYS are put. Once you have run the MKDISK command above, you can remove MKDISK.EXE from the Edisk.

- READHP -- ReadHP is installed on your PC, not the HP.

1. Check to see that the appropriate DEVICE command is in your CONFIG.SYS file.

   - The following command line in your CONFIG.SYS file lets you read HP-150, 110, and Portable Plus single-sided floppy Disks:

     device=hpsingle.sys d

   - This command line in your CONFIG.SYS file lets you read HP-150 double-sided floppy disks:

     device=hp150ds.sys d

   - This DEVICE command in your CONFIG.SYS file lets you read Plus/110 double-sided floppy disks:

     device=hp110ds.sys d

     In each case **d** is the drive letter of your 3.5" drive.

   If the appropriate DEVICE command is NOT in your CONFIG.SYS file, follow the installation instructions in the ReadHP manual to install ReadHP.

2. Each of the above DEVICE commands installs a DEVICE DRIVER when you boot up. Make sure that the appropriate device driver is on the drive you boot from. Type the DOS DIR command and you should see one of the following:

   HPSINGLE.SYS for 150, 110, Plus single-sided disks;
   HP150DS.SYS for HP-150 double-sided disks;
   HP110DS.SYS for Plus/110 Double-Sided.

   If not, follow the installation instructions in the ReadHP manual to install ReadHP.

3. Reboot your IBM and look for the ReadHP message noting the Logical Drive ReadHP is using (see page 7 of the ReadHP manual for more on this). It will be the next drive letter available, usually drive D. The rest of this article will assume ReadHP is using drive D.

4. DOS commands can access HP disks using the logical drive assigned by ReadHP (drive D in our example), not the physical drive your PC usually reads. Make sure you use the ReadHP logical drive when reading HP disks.

5. Try formatting a new HP Portable disk, copy some files to it, then transfer to the IBM and test ReadHP. Some problems may be because of worn disks. You can get READ ERROR, BAD DISK, and NON-DOS DISK error messages because of a worn disk. Note that some files don't work on PC-compatibles. Copying a file to the IBM with

ReadHP will not make it usable. The best test of success is to transfer an ASCII file and use the TYPE command to display it on the IBM screen.

6. If you get a disk error which asks "Abort, Retry, Ignore?" try typing **i** and see if the command will execute.

7. There may be some PC's on which ReadHP cannot read some or all HP disk formats. ReadHP does not work on an external 3.5" IBM drive (one that plugs into an external port). If you have the resources, try using ReadHP on a different PC or for a different format of HP disk.

COMMON QUESTIONS AND THEIR ANSWERS

110 P+ Q: When I start my Portable, a command in CONFIG.SYS locks up the computer. How can I remove this command?

A: First turn off the machine by holding down the contrast key until the machine turns off. Then press **ctr-shft-ext** char and tap the **contrast key**. The machine will boot into DOS from the B ROM drive and you can take the offending line out of CONFIG.SYS. If the bad line is in AUTOEXEC.BAT, it is easier to just hold down **ctr-c** to abort AUTOEXEC.BAT.

Q: How do I turn on a locked-up Portable?

A: Try these techniques in sequence, each more drastic than the next, until one works:

1. Make sure it is off by holding down the contrast key for about 20 seconds. Then tap the contrast key to turn it on.
2. Turn off the computer as above, then boot from the B drive by holding down the following keys: **ctr-shift-ext char-contrast**.
3. Do a hard reset by removing the battery cover and pressing the black button. You will loose the RAM memory.
4. Replace the battery if none of the above work.

Q: Can I send ASCII control characters to my printer with Lotus?

A: Use the setup string option in Lotus. Check in the Lotus Manual's index under "ASCII." You will also need your printer manual.

Q: My drive went down while using Lotus and I can't save the spreadsheet in my computer.

A: /WGDD will let you choose a new drive to save your spreadsheet on.

Q: I've just installed a ROM product in my Plus and it doesn't show up on the PAM screen.

A: Backup your Edisk before opening the software drawer. On a two-chip package the chips must be in adjacent sockets. The chip marked "H" must be in a socket marked "H" and the chips marked "L" must be in an "L" socket. Make sure the chips are installed with the notch on the chip matching the notch in the outline of the chip on the circuit board and the chip is properly seated.

Q: How can I put a volume ID on a disk?

A: When you format a disk on the 110, Plus or 150, you will be prompted to give a volume ID. There is a program in Norton Utilities called VL which will let you change the volume ID.

Q: How can I get a DOS (ASCII) file into WordPerfect or save a WordPerfect file as a DOS (ASCII) file?

A: Wordperfect's Text In/Out function is accessed by pressing **ctrl-f5** while in WordPerfect. You can save or retrieve in DOS (ASCII) format. On a retrieve you are given two options for what to do with the carriage returns and linefeeds (see WP manual Text In/Out for details).

Q: Can I use WordPerfect 5.0 on my HP-150?

A: WP 5.0 requires at least 512K to run on the 150. Use the DOS command CHKDSK to see how many bytes total memory the machine has.

Q: How can I alter the protection on a file?

A: Use the CHANGE command from Personalized Software's DOS Tools. See the DOS Tools manual for details.

Q: Can I run two devices from the Portable Plus serial port?

A: No, run one of them from the HP-IL port.

Q: I'm having trouble using my LOGITECH mouse with the Portable Plus.

A: Make sure you have used LTMOUSE, not MSMOUSE and that the files are installed in the root directory.

Q: What WordPerfect printer driver do I use for the HP 82906A printer?

A: Use the STANDARD PRINTER driver.

PV Q: How do I read HP disks on the LS/12?

A: See the instructions above on ReadHP and Vol.4, No.4, Pg.17. of *The Portable Paper*. You must reboot before the computer will load the driver.

Q: There are thin lines missing from my thinkjet printout.

A: Clean the cartridge.

110 P+ PV LS/12 Q: My computer locks up when I try to run Sidewinder from the "Run Sidewinder?" prompt in Sidewinder enhancer.

A: Circumvent this bug by typing "N" to exit Sidewinder Enhancer and then run Sidewinder from PAM.

RANDOM NOTES

- BOXES on the 1989 Portable Paper Subscriber Disk does not work with MemoMaker, only with The Editor.
- Webster's doesn't work with MS-Word files.
- Password on the 1988 Subscribers disk. If you get locked out, type TESTPASS (all caps) and the initial password, unless you have changed it.
- WordPerfect on the Plus -- you can delete all WP{WP} files except WP{WP}.SET.

- LapTape won't work on an LS/12 with expansion chassis when the VGA is on.
- Reflections used with a 2400 WorldPort MNP modem -- port configuration menu (F1 then F3) CTS should be HIGH. ■

Voodo DOS

Joe Butterworth

Thought you might enjoy the spooky little story I've enclosed titled "Voodoo DOS." I must emphasize that everything I've described in the story actually happened except for the talking Portable Plus computer and the dark and stormy night. But here's the really spooky part. Since writing the story, I've been absolutely unable to duplicate the strange results that I first observed with file ????????.90b! Now that's spooky! So if you repeat the little experiment described in the story and find that DOS works fine, don't be surprised. On the other hand, if you, too, find that DOS requires a sacrifice before it will delete a file welcome to the twilight zone!

110 P+ PV LS/12

THE NIGHT WAS DARK AND FORBIDDING ...

The night was dark and forbidding as I sat before my Portable Plus computer wrapping up some file management tasks I had put off doing. Lightning cracked and thunder roared through the dank atmosphere. But I was warm and dry and the computer was operating on its internal battery to protect it from electrical transients, so despite the storm I felt secure. But was I?

Running Personalized Software's FilePlus, I turned to the my first task: Rename a file called CAPTIONS.90A to CAPTIONS.90B. Since the basic file name was to be retained while renaming only the extension, I thought I could save keystrokes by typing only "*.90B" when FilePlus asked me for the new name.

"How clever," I thought to myself.

"Tsk tsk," an almost inaudible voice murmured from somewhere within my Portable Plus computer. Momentarily stunned, I quickly dismissed the voice as wind noise as the storm raged outside. "Computers don't talk," I thought. "Let's see how that turned out." And I rearranged the FilePlus display to view my new file, CAPTIONS.90B. It wasn't there, but I did find a file named "????????.90B".

"Rats," I thought. "My use of the asterisk wildcard to save keystrokes is now going to cost a bundle of keystrokes to fix. I'll have to ask FilePlus to rename ????????.90B to CAPTIONS.90B." So I did, but all I got was an error message, "File already exists ..."

"Now what?" I thought. "Well, if Rename won't work let's delete it. After all, I've got a backup on disk." So I asked FilePlus to delete ????????.90B. This time I got a more personal error message: "Sorry. This one will not go."

"What's going on?" I asked to no one in particular. "But wait, if FilePlus won't rename or delete this rogue file, I'll use MemoMaker or The Editor and handle it from within one of those programs." But neither MemoMaker or The Editor would load ????????.90B!

"Now what do I do?" I said aloud.

"I tried to warn you," the voice from the computer said, this time loud enough so there was no chance of it being mistaken for the wind. I sat there, my mouth agape, my brain refusing to believe what it had clearly heard. Finally, I said in a quiet voice, "Computers don't talk."

"Oh anyone knows that," the voice replied. "How can they? Computers are just dumb machines, collections of silicon and copper. But software, and more to the point, operating system software...there's another matter entirely. Allow me to introduce myself. My name is DOS."

"I don't believe it," I murmured. But before "it" could say anything more, I went directly to DOS. Voices or not, I knew a good tip when I heard one: If all else fails, go to DOS. I asked for a directory listing of "*.90B", and lo and behold, there was file ????????.90B, all 8K worth. Surely now I could deal with this rogue! I typed "RENAME ????????.90B CAPTIONS.90B", but before I could hit the RETURN key DOS said (that's right, said) to me, "It won't work!"

Naturally DOS was right. It didn't work. I think the error message was "UNABLE TO FIND FILE ????????.90B." But I was in such a rattled state, I can't be sure. Anyhow, I finally managed to get my hands calm enough to type "COPY ????????.90B TEMP", hoping to coax it into a temporary home so I could kill it.

"You don't give up easily, do you?" DOS said, as he, she or it displayed the same error message.

"Now cut that out!" I shouted, thinking maybe if I was more aggressive... I pounded out ERASE ????????..90B.

"Ha ha!" DOS chortled. "You fool." Of course, this too failed.

"Why me?" I cried. "All I did was try to be clever and save a few lousy keystrokes, and now you've stuck me with 8K of E-disk space which is unreachable in any way shape or form. What do you want of me?"

"A sacrifice," DOS boomed from my Portable Plus.

"A sacrifice," I lamented. "Now wait a minute. Computers are great and all that. But a sacrifice? That's going too far."

"Surely there's a file you could spare," DOS intoned. "You have many, and if it's backed up you've lost nothing. And unless I get my file, you're stuck with my little pet, ????????.90B. Now what do you say?"

It took me a moment to respond. I was still trying to figure out how DOS said ????????.90B. "OK," I finally responded. "You win. Which file do you want?"

"It doesn't matter. You choose."

Outside, the storm howled with renewed fury as I copied an old text file and renamed the copy BONEHEAD.90B. "OK. Here's your sacrificial file, DOS."

"Good. Now just lay your hands on the keyboard and relax. Hum. BONEHEAD. That's good. Appropriate, too."

Maybe it was the electricity in the air caused by the strange rainless lightning, or maybe it was something unexplainable by mere science, but some force guided my trembling hands as they typed "ERASE *.90B."

Lightning as bright as day lit up my room and a tremendous clap of thunder shook me as I hit the RETURN key. And from within the computer, "Ah! Good! Thank you," accompanied by an eerie smacking of lips.

After a moment or two to collect my shattered nerves, I called up FilePlus. The rogue file, ????????.90B was gone. I sat there for a while as the storm abated, wondering how or if I would ever tell anyone of this strange occurrence. No one would believe me. But I did learn one thing: no short cuts when communicating with DOS. And listen to your computer.

[Joe is a retired Hughes Aircraft engineer. He and his wife are traveling full time in their 23-foot travel trailer, exploring the U.S. and Canada. Joe's permanent address is 987 Vermont, #4, Oakland, CA 94610.] ■

Late Night At Personalized Software

[As many of you will appreciate, running a small business can require many days without rest or much sleep to reach deadlines. Our graphic designer George Foster and I are veterans in late night marathons to produce a newsletter or advertising feat. The original (blue covered) Portable Equipment Exchange that we send out with each issue represents our latest efforts. George finally saw the wisdom of desktop publishing and did much of his work on an Apple Macintosh.

However (to no one's surprise) this evolution in George's thinking did not result in either of us getting any more sleep. What did help this time was our involving Glen Frank, our bookkeeper, proof-reader, and sometimes graphic artist. We pulled Glen in at the end of a series of late nights needed to put the Portable Equipment Exchange together. We thought some of you might enjoy and relate to his comments about the experience -- Hal.]

A Day in the Life of Herr von Frankwitz, Private 1st Class

Sometimes Glen Frank.

It was a quiet evening - too quiet. Curious George Foster had said he'd call at 7:45, and it was now 8:30. Something must be wrong. "Big Hal's not going to like this," I thought. Suddenly the clanging of the phone bell jarred me out of my gloomy ruminations. It was Curious George.

"OK, you can come over now, we're ready to start," George mumbled sleepily into the mouthpiece.

I hung up quickly and jumped for my briefcase, already stuffed with the materials I had painstakingly gathered together under Big Hal's instructions earlier in the day. I was out the door and down the street into the wispy evening fog in two shakes of a cat's tail.

"Now that we're ready, this ought to be a snap," I remember thinking optimistically (and, unrealistically). "Hour, hour-and-a-half, and it'll be all pasted up and ready to go." Hah!

The first indication that things weren't going to go my way was when I got to George's office and he said, "Well, there's nothing printed out yet for you to paste onto." Just about then, Big Hal arrived, and wheels really started turning fast. Artwork that had been ostensibly the right size just a few hours ago suddenly needed reducing or enlarging. New artwork needs appeared out of thin air. Some of the old artwork just vanished, vaporized from our consciousness and tossed into the circular file. Big Hal was on the scene.

The next five hours are still a bit blurred in my memory. Back and forth, back and forth, between Hal's office and George's studio I careened, till I couldn't tell whether I was coming or going (usually it was both). Shrink. Enlarge. Cut. Center. Paste. Over and over and over again till smoke began to rise from the glue stick, its cylinder glowing red from the friction.

Suddenly, it was over, like a clear, soundless sky returning abruptly after a summer storm. We jumped up and down, screamed war cries, pounded each other on the back. The Terrible Trio had done it. It was all over except for counting the dead glue sticks, and taking it over to the local Tribune Printing Company to be printed the next - no, this morning! It was 2:00 A.M. of the new day.

Later that morning, I got the stuff to the Trib, and they cranked it right out as if they ate that type of thing every morning for breakfast. I went back to the office.

It was a quiet morning - too quiet. ■

Mac Reads HP Disks With Read HP and Soft PC

Reader Bill Brearly reports that he is able to put an HP-formatted disk into his Apple Macintosh IIci and use ReadHP (available from Personalized Software) to read from and write to the disk.

He uses a Macintosh program called SoftPC to create a DOS environment on his Mac. He installs ReadHP in that environment, specifying the floppy drive he wishes to use. When the Mac uses the drive, it can read from and write to the HP disk. The disk comes up on the Mac as an icon and the Mac creates a file folder called "HP." He can read HP ASCII documents.

ReadHP is available to subscribers of *The Portable Paper* for $69. It allows IBM compatibles to read HP Portable and HP150 3.5" disks. Call us at 515-472-6330.

SoftPC is a product of Insignia Solutions LTD of Sunny-Vale, California, and retails for $399 for the XT/CGA version and an additional $199 for the AT/EGA option. For more on Soft PC contact Insignia Solutions directly at 1-800-848-7677. ■

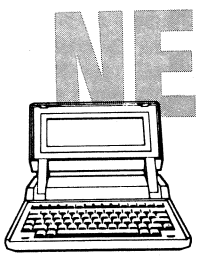
Foreign Voltage Adapters Are Excellent Traveling Companions

Radio Shack produces a couple of well-recommended voltage converters to use with your Portable Plus, 110, 9114 Drive, ThinkJet, LS/12, or Portable Vectra AC when you're on the road, abroad:

- CONVERTER-ADAPTER (part no. 910-5255, type 273-1402) -- This converter allows the use of 120 VAC devices with high wattage requirements (irons, heating pads, etc.). Rated at 1,000 watts, it comes with a built-in thermostat that prevents overheating and overloading.

  The Converter-Adapter weighs 3 oz, is 3.5" x 1.5" x 1.5", and retails for $15.95 at Radio Shack.
- STEP-DOWN TRANSFORMER (part no. 910-5250, type 273-1401) -- Provides safe operation of low wattage devices such as electric razors, radios, calculators, etc. Thermally protected and rated at 40 watts.

  The Step-Down Transformer weighs 9.5 oz, is 1.6" x 2.6" x 1.25", and retails for $14.95 at Radio Shack. ■



Personalized Software INC.

Products that make HP Portables smarter

P.O. Box 869, Fairfield, Iowa 52556 515 472-6330

By Hal Goldstein

1991 Subscribers Disk

110 P+ PV LS/12

Ed Keefe recently went through a number of programs I have been collecting this past year and coupled with his own collection sent me back two 700K disks crammed with software. One or two more iterations are required before we nail down the 1991 Portable Paper Subscribers disk. Leading candidates for the disk include:

- LZEXE and SCRNCH the EXE and COM file compression utilities that can reduce the size of a program file as much as 70%.
- KERMIT 3.0 for the HP110, Portable Plus, and Vectras. KERMIT is a popular communications protocol that can be used when transfering files via modem or serial port from the HP Portables to another PC.
- A host of new games for the Portable Plus including Poker and a war strategy game.
- The latest version of Ed's favorite word processor VDE. Popular PC Magazine columnist John Dvorak in his April 24, 1990 Inside Track agrees with Ed when he says "VDE 1.5 may be the finest piece of word processing code ever written."
- A number of quite useful DOS utilities and Lotus worksheets that work on the HP110, Portable Plus, LS/12, and Portable Vectra.

If you have contributions or suggestions, please send them our way soon, addressed to me, Hal Goldstein.

The 1991 Subscribers Disk is only available with a 1991 subscription to the Portable Paper. It will be shipped with the January 1991 issue of The Portable Paper along with an index to the 1986-1990 issues. ■

ROMBO Is Really Shipping

P+

I apologize for stating last issue that ROMBO was shipping. It actually began shipping in mid-August. Our 128K byte chip manufacturer had promised to send the final chips to us a couple of days after The Portable Paper went to the printer. We tested the final prototype chips a week before and everything seemed fine. The chips came in on schedule, and we were prepared to ship.

We started testing the chips in final QA, and we started experiencing intermittent problems with the chips. We thought the problem was with the firmware of the ROM burner. Days were spent working with the ROM burner vendor. We finally discovered the main ROM part of the 128K byte ROMs we built was not the same as our prototype and slightly different from the ROM vendor's specifications. What this meant was a six week delay in getting in and building new 128K byte ROMs. Those ROMs tested fine and were shipped. By the time you receive this newsletter we should be well-stocked with ROMs and ROM burners to fill all orders. ■

DAC-EASY Accounting A Product Again

P+

DAC-EASY accounting version 1 works quite nicely in the Portable Plus and the HP150 environment with slight modifications (see Vol.4, No.2, Pg. 16-19). DAC-EASY has given us permission to reproduce their manual and ship a Portable Plus/HP150 version of their product.

DAC-EASY is available through Personalized Software (Part No. DC11NS, retail price $150, subscribers price $129). Use the order form inclosed in the center spread or call 515-472-6330. ■

WordPlus For HP110 No More

110

WordPlus has been an ideal spelling checker for the HP110. It works nicely on the 16 line screen and a version of the dictionary is provided that fits on the HP110 electronic disk. After months and months of indecision and not returning our phone calls, Russ Boelhauf, the author of the program, chose not to let us continue to sell the product. We offered to reproduce the manual and disk, support the product, and pay him royalty. He would have to do nothing. For some unknown reason, Russ finally said no. If you would like to register your opinion, please contact Russ Boelhauf, Oasis Systems, 6160 Lusk Blvd, San Diego, CA 92121, (619) 453-5711, Fax: (619) 453-5716. ■

WorldPort Fax

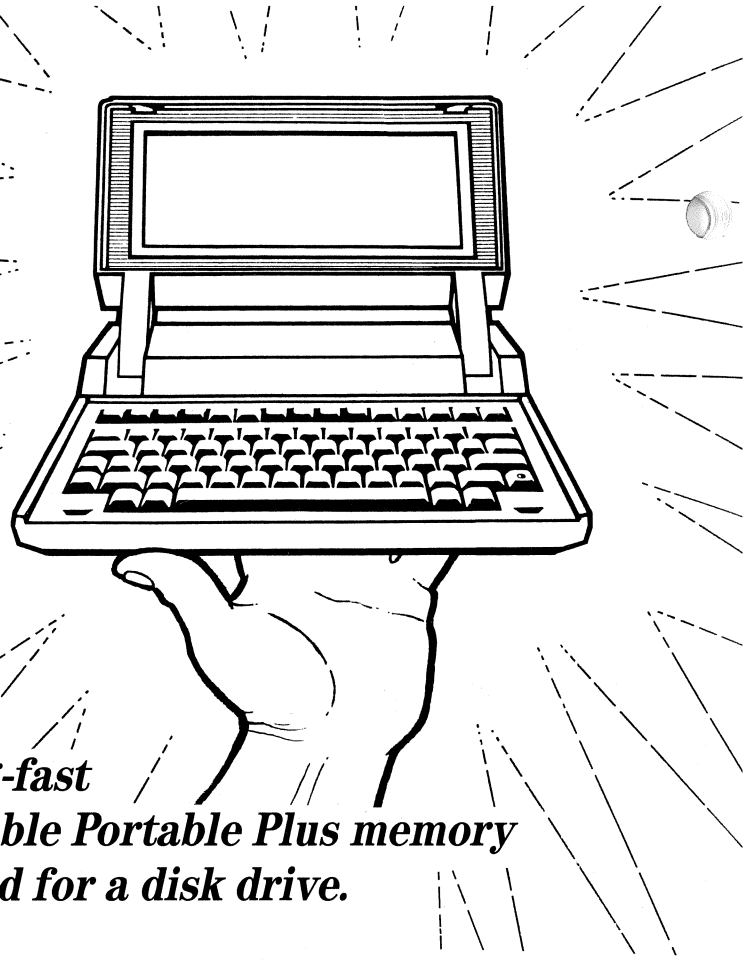
110 P+

A number of you have patiently waited to see if we can get the WorldPort Portable Fax to work with the HP Portable Plus and HP110. The bad news is the the WorldPort (Touchbase Systems) folks will not be able to rewrite the IBM PC compatible software to work on the HP Portables. However, there is still hope.

Touchbase soon will release a command line version of their software. According to a Touchbase programmer, the version should work on the Plus. They will be sending us the software and a portable fax for us to test when they release the software.

I can't really promise a timeframe because it depends on when we get a unit. We'll keep on it and keep you informed. ■

MAXIMUM POWER FOR YOUR PORTABLE PLUS



Easy-to-use, lightning-fast ROM chips save valuable Portable Plus memory and eliminate the need for a disk drive.

The most powerful and unique feature of your Portable Plus is that it lets you store programs on ROM (**R**ead-**O**nly **M**emory) chips for instant access.

Almost all other portable computers require a disk drive in order to function. A disk drive—even a portable one—is a bulky piece of equipment, easily breakable, and slow in loading programs.

By contrast, a ROM chip weighs next to nothing, is virtually indestructible, and lets you load programs instantly. (Programs on ROM chips don't take up any space on your Edisc.)

All of which means that your 9-pound Portable Plus is **the fastest, most portable, and most reliable computer you can own**—provided, of course, you take full advantage of its ROM technology.

YOUR SOFTWARE DRAWER WAS MEANT TO BE FULL

The engineers at Hewlett-Packard designed the Portable Plus so it could accommodate an optional "software drawer" containing 12 ROM sockets. Clearly, their intention was that those sockets be filled with useful programs.

But if you're like most Portable Plus users, you probably are using just a few of the sockets for ROM-based programs like Lotus 1-2-3 or MemoMaker.

That's fine as far as it goes, but if you aren't using *all* the ROM sockets—or if you have to carry around an HP9114 disk drive wherever you go—*then you are not using your Portable Plus to full advantage.*

To start using the *full* potential of your Portable Plus, look over the chart at the far right. It contains more than 50 programs and utilities available on ROM chips from Personalized Software.

Taken together, these ROMs cover *every application you're likely to need*—from word processing to spreadsheets to data communications, graphics, programming languages, and more. Which means once you install these ROMs, you'll have everything you need right inside your Portable Plus. *You'll never have to carry a disk drive again.*

We invite you to browse through the chart, read the information at the right, and then order one or more ROMs today. You'll find them to be fast, reliable, and an incredible boost to your productivity.

Whatever your reason: to free up valuable memory space. . . to eliminate the need for an external disk drive. . .or just for the convenience of lightning-fast program loading, *fill your software drawer with ROMs* and you'll turn your Portable Plus into the powerhouse its designers intended it to be.

With our exclusive Double Guarantee, the risk is all ours. Why not order right now?

OUR EXCLUSIVE DOUBLE GUARANTEE ON ROMS

60-DAY GUARANTEE OF SATISFACTION
If, within 60 days, you are dissatisfied with a ROM product for any reason, you may return it for a full refund.

2-YEAR GUARANTEE AGAINST DEFECTS:
If a ROM proves defective at any time within 2 years, we will replace it at no charge.

P.S. If you have questions about any of the ROMs, give us a call. Brian or David will be happy to make some recommendations as to which ROMs might best meet your needs for word processing, spreadsheets, or whatever applications you're interested in.

EASY TO INSTALL

We supply clear instructions and diagrams with every ROM order. If you prefer, send us your software drawer and we will install your ROMs for you—and test them—at no charge.

To remove your software drawer, first back up your A drive (so you won't lose your data), then use an ordinary screwdriver to remove the two outside screws on the drawer.

You won't be able to use your Portable Plus without the software drawer, so we recommend you call us first to make sure the ROMs you want are in stock, and to set an appointment for installation.

That way, we can install and test your new ROMs the day we receive your software drawer, then ship your drawer back that same evening. Return shipping within the Continental U.S. via UPS Second-Day Air is free for all orders over $200. Please add $15 to your order if you want overnight return shipping.

(In most cases, if you set an appointment in advance and use overnight shipping both ways, you'll only be without your software drawer for less than two business days. We'll ship the manuals and other materials in advance by surface carrier so you'll have them by the time you receive back your software drawer.)

HOW TO ORDER ROMS

To order, use the postage-paid order form in the center of this issue. For even faster service—or if you have questions about any of our ROMs—give us a call.

IMPORTANT INFORMATION ABOUT OUR ROMS

We offer two kinds of ROM chips. One kind we produce ourselves; these are offered as part of our "ROM Backup Packages" (see below). The other kind are manufactured by Hewlett-Packard; we call these simply "HP ROMs."

ROM Backup Packages

A ROM Backup Package includes both the disk version of a program and the ROM version—plus the standard User's Manual and additional instructions for installing and using the ROM. (In the chart, prices of products marked "PS" are for entire ROM Backup Package.)

According to the agreements we have with the original software vendors, our ROM version is considered a backup copy of the disk version. Unless you already own the disk version, we cannot sell you the ROM Backup by itself.

Please note:

1. If you purchased the disk version of a program from us, we have that in our records. If you purchased the disk version elsewhere, you will need to show us proof of purchase before we can sell you just the ROM Backup.

2. Prices for ROM Backups alone are as follows:

As-Easy-As	**$125.**
Best of DOS Tools	**$129.**
The Editor	**95.**
GamesPlus	**105**
HPDuette	**95.**
HPrint	**95.**
Shelp	**55.**
SideWinder	**55.**
Shelp + SideWinder	**95.**
Sketch	**95.**
Squish Plus	**135.**
SuperROM	**49.**
TermPlus	**95.**
Turbo Pascal 3	**95.**
Typing Whiz	**95.**
Webster's Speller	**179.**
WordPerfect	**295.**

3. It is important that you read and adhere to the licensing agreement that comes with the disk version of any software you buy, because the same agreement applies to the corresponding ROM Backup. In most cases, this means you can use only one version of the software at a time on only one computer system at a time. Remember, the ROM is a *backup* copy of the software, not an independent second copy.

HP ROMs

The HP ROMs that we sell do not include (or require) the corresponding disk versions. They are the same ROMs that HP sells, except ours are used—which turns out to be *better* than buying them new. Here's why:

Unlike other used products you can buy, there are no moving parts on a ROM, and nothing that can wear out. Because of this, our two-year guarantee against defects applies to used HP ROMs as well as to our own ROM Backups. (Two years is twice the guarantee against defects that Hewlett-Packard offers.)

Our used HP ROMs are also covered by our unique 60-day guarantee of satisfaction.

Best of all, our used HP ROMs are priced as much as 50% below retail. Look at the chart at the right and compare! (In the chart, "Retail price" of HP ROMs is HP's price new. "Subscriber price" is our price used.)

SOFTWARE AVAILABLE ON ROM

For product details, see individual ads elsewhere in this issue, in our catalog, or refer to articles in past issues. In this chart, "Type" refers to either HP **(used HP ROM)** or PS (Personalized Software ROM Backup Package -price includes both ROM and disk versions). **CALL FOR AVAILABILITY OF USED HP ROMS.**

Product	Part Number	Retail Price	Subscriber Price	Type	No. of chips	Notes
WORD PROCESSORS						
WordPerfect 5	WD11NK	$919	$595	PS	6	384K of files includes PlusPerfect, main WP program, help files, printer drivers, etc. Does not include required 300K wp.fil file, spelling checker, or thesaurus.
The Editor II	ED12NK	195	175	PS	1	The Editor version 1 is available as part of our SuperROM chip (see "Combined ROMs," below).
MemoMaker	-	-	-	HP	-	Comes on same chip as Time Manager (see "Combined ROMs" below.)
MSWord	MS20UR	394	199	HP	1	
MultiMate	MM20UR	520	295	HP	1	
WORD PROCESSING UTILITIES						
Format110	-	-	-	PS	-	Comes as part of SuperROM (see "Combined ROMs")
FormatPlus	FP13NK	175	165	PS	1	
HPrint	HP12NK	175	171	PS	1	
Mini PrinterTalk	-	-	-	PS	-	Comes as part of SuperROM (see "Combined ROMs")
Webster Speller	WB13NK	259	249	PS	2	
SPREADSHEETS AND UTILITIES						
Lotus 123,1A	LT12UR	495	249	HP	2	
Lotus 123,2.01	LT15UR	625	395[2]	HP	3	3rd ROM containing help doesn't have to be installed.
New Lotus 123,2.01	LT11HR	625	499[2]	HP	3	Pricing of NEW HP ROM if used ROM not available.
As-Easy-As	AS11NK	215	195	HP	2	
SideWinder	SW12NK	135	125	PS	1	Also available on a ROM with Shelp, and on our SuperROM chip (see "Combined ROMs" below).
DATABASE PROGRAMS						
Exec Card Manager	EC11UR	395	225	HP	1	(Lotus 1-2-3 can also be used as a database.)
COMMUNICATIONS						
PC2622	PC13UR	395	239	HP	1	VT100 and HP Terminal emulator.
Reflection	RF11UR	525	295	HP	1	Minor upgrade of PC2622
TermPlus	TE13NK	195	175	PS	1	Includes FormIBM, Jetctrl, and other great utilities.
PRODUCTIVITY BOOSTERS / GAMES						
Best of DOS Tools	DT12NK	179	169	PS	2	Selected utilities from DOS Tools[1]
FilePlus	FE14NK	165	155	PS	1	
GamesPlus	GA11NK	205	175	PS	2	Chess, Go-Moku, TigerFox, FastMind, Othello, Yhatzee
HP Calculator	CL11NK	95	95	PS	1	From our 1987 Subscriber Disk
HP Duette	DU13NK	195	185	PS	1	Contains Portable Plus half of software
Shelp	SH12NK	110	105	PS	1	Includes note extraction program. Shelp also available on a ROM with SideWinder, and as part of SuperROM chip (see "Combined ROMs" below).
Time Manager				HP		Comes on same ROM as MemoMaker (see "combined ROMs" below).
Typing Whiz	TW12NK	145	135	PS	1	
Squish Plus	SQ11NK	264	235	PS	2	
GRAPHICS						
Sketch	SK12NK	175	171	PS	1	(Lotus 1-2-3 can also be used for graphics.)
PROGRAMMING LANGUAGES						
MSBasic	MS21UR	331	165	HP	1	This is not GWBASIC.
COMBINED ROMs						
MemoMaker/TimeMgr	MM21UR	245	119	HP	1	
Shelp,SideWinder	SH13NK	235	215	PS	1	Also includes SideWinder enhancement utility.
SuperROM (5 programs on one chip):The Editor, Format110, Mini PrinterTalk, Shelp, Sidewinder	SU11NK	474	299	PS	1	Mini PrinterTalk is the abbreviated version included on the PrinterTalk disk; it is functionally equivalent to Printertalk for most applications. Shelp and SideWinder are the same versions as on the individual ROMs described above.
BUNDLES						
Editor Pack +	FM17NK	823	599	PS	5	(Editor II, Webster, FormatPlus, FilePlus)
Editor Pack	FM16NK	658	499	PS	4	(Editor II, Webster, FormatPlus)

[1]Utilities included in the Best of DOS Tools ROM backup Package are as follows. For program details, see catalog.

PACK	DUMP	TY	CYPHER	RENDIR	WHEREIS	TEE	SDL	FDATE	LABEL	DIRS	TRANSLIT
CLEAN	DIRALL	ARCE	MOVE	OFF	CHANGE	ARC520	MOVEALL	TRIM	BEEP	SQPC	SM
VDL	TMA	TJETA	FCOPY	ASK	PRNCONF	WAIT	FGREP	XCOPY	FDUMP	COPYNEW	

Note: ARC520 is shareware; the author normally requests a $35 contribution. However, we've already paid your user fee.

[2]IMPORTANT: All HP ROM prices given in this chart (unless othewise stated) are for used ROMs. Used HP ROMs (especially Lotus 2.01) are sometimes not in stock. Call to verify availability of used HP ROMs and pricing on new HP ROMs if used ROMs unavailable.

OUR COMPLETE HP110, PORTABLE PLUS PRICE LIST

Product	Part No.	Retail Price	Sub. Price	With Portable Purchase*	

* Items in this column are discounted further with a purchase of an HP110 or a like-new or refurbished Portable Plus.

HP110, PORTABLE PLUS COMPUTERS

COMPUTERS

Like-new 512K P.Plus[1]	PP36UC	$2795	$995	
Refurbished 512K P. Plus	PP16UC	2795	795	
Refurbished 128K P. Plus	PP12UC	2590	395	
Refurbished HP-110	PQ11UC	3000	495	
Like-new German Plus[1]	PP37UC	2795	995	
German localiz. ROM	GE31UR	150	99	(50)
Like-new Swiss/Fr. Plus[1]	PP34UC	2795	995	
French localiz. ROM	FR31UR	150	99	(50)
Like-new Swedish Plus[1]	PP40UC	2795	995	
Like-new English Plus[1]	PP31UC	2795	995	
Like-new Italian Plus[1]	PP38UC	2795	995	
Italian localiz. ROM	IT31UR	150	99	(50)

[1]All Like-new Portable Pluses come in original packaging with new battery, new manual, and our 1 year guarantee.

SPECIAL HP110, PORTABLE PLUS BUNDLES

HP110,ThinkJet,HP9114	PP40UX	$4300	$ 795
Like-new RAM Special[2]	BU11UX	3816	1295
Refurbished RAM Special[2]	BU12UX	3816	1095
Like-new ROM Special[3]	BU13UX	4450	1595
Refurbished ROM Special[3]	BU14UX	4450	1395
Like-new Terminal Spec.[4]	BU15UX	4360	1395
Used Terminal Special[4]	BU16UX	4360	1195
256K Terminal Special[4]	BU17UX	4591	845

[2]RAM SPECIAL: 512K Port. Plus, 128K RAM drawer, Shelp, Editor II, Websters, FormatPlus, FilePlus, As-Easy-As, GamesPlus

[3]ROM SPECIAL: 512K Portable Plus, 128K RAM drawer, ROM drawer, GamesPlus, and ROMs:
Editor II, Websters, FormatPlus, FilePlus, Shelp, As-Easy-As

[4]TERMINAL SPECIAL: 256K or 512K Portable Plus, 1200B int. modem, Reflection or PC2622, MemoMaker, Time Manager

PERIPHERALS

MODEMS

Used 1200 baud Internal	BM11UC	$600	$250	(167)
WorldPort Modem 1200	WM11NH	199	179	
WorldPort Modem 2400	WM12NH	359	319	(295)
WorldPort M. 2400/MNP	WM13NH	499	425	
WorldPort serial cable	WM14NM	30	20	
WP 1200 Upgrade kit	WM13NG	199	179	
WP Acoustic coupler	WM16NH	79	79	
HP92205D Acoust. cpler	AC11NC	195	135	

PRINTERS, PLOTTER (Refurbished)

HP-IL ThinkJet Printer	TJ11UC	$ 495	$ 199	(179)
Serial ThinkJet Printer	TJ14UC	495	295	
DeskJet Printer, cable	DJ11UC	837	425	(399)
HP-IL 7470A Plotter	PL11UM	1095	595	
DeskJet Plus	DJ12UC	995	CALL	
PaintJet	PA12UC	1395	CALL	
LaserJet 500 Plus	LA13UC	4200	CALL	
LaserJet II	LA14UC	2495	CALL	
LaserJet IID	LA12UC	3795	CALL	
LaserJet IIP	LA15UC	1495	CALL	

DISK DRIVES (refurbished)

HP9114A Disk Drive	DD11UC	$ 795	$ 199	(179)
HP9114B Disk Drive	DD12UC	795	249	(199)
15 Meg Hard Drive	HD11UC	2700	995	
(with HP-IB/HP-IL Interface, HPIB, HPIL cables)				

MEMORY, SOFTWARE DRAWERS (Used, P.Plus)

1 Meg HP RAM Drawer	MM11NC	$1275	$ 995	
384K HP RAM Drawer	MM12UC	982	295	
256K HP RAM Drawer	MM19UC	709	225	(199)
128K HP RAM Drawer	MM13UC	436	150	(99)
128K HP Memory Card	MM14UC	273	125	(99)
HP ROM Software Draw.	SW11UR	195	99	(79)

ROM BURNING (Portable Plus)

ROM Burning kit	EP10NH	$695	$595	(495)
(ROM burner & eraser,cable,2 128K EPROMs,software,manual)				
128K byte EPROM	EP11NR	69	59	(49)
(4) 128K byte EPROMs	EP12NX	276	199	(179)
128K PROM (no erase)	EP18NR	64	54	(44)
Four 128K PROMs (" ")	EP19NX	256	179	(159)
64K 27C512, EPROM	EP13NR	25	22	(19)
ROM burning software	EP14NS	250	195	
Custom 128K burning	EP15NE	150	135	
Custom burning consult.	EP16NE		75 per hour	

INTERFACE CARDS (refurbished)

HP-IL Card For IBM PC	IL11UC	$195	$119	(99)
New HP-IL Card For PC	HP17HM	195	159	
P.Plus Video Interface	VI14UC	435	195	
P.Plus V.Intfce+Monitor	VM12UM	750	275	
Composite monitor	VM11UC	325	150	
HPIL/HPIB Interface	IL13UC	395	235	
HPIL/Serial Interface	IL12UC	295	179	

INPUT DEVICES

Log.Mouse P.Plus System	MS15NM	$219	$179
P.Plus Mouse Sftwre	MS11NS	70	60
P.Plus Mouse Cable	MS13NM	30	20
Numeric Keypad, P.Plus	TS11NM	139	135

THE PORTABLE PAPER

(Subscribers Disks Only Available With Subscriptions)

1991 Subscript. & Disk	PPN1PS	$55.00	(Free)
All 1986-91 issues/disks	PL11PK	159.00	
All 1986-90 issues/disks	PL14PB	119.00	
Individual back issue	PP99PB	9.20	
PP Binder Vol.5	PB16NM	7.00	
PP Binder Vol.1-5	PB15NM	29.00	

SOFTWARE ON ROM (PORTABLE PLUS)

If the product number ends with "UR", it is a refurbished HP ROM. If it ends with "NK", it is a new Personalized Software disk plus ROM backup.

Product	Part No.	Retail Price	Sub. Price	W/PlusBackup Purchase	Backup Price*
Combined ROMs					
Shelp,SdWndr	SH13NK	$235	$215	(139)	95*
SuperROM	SU11NK	474	299	(199)	49*
(Editor I, Format110, PrinterTalk, Shelp, SideWinder)					
Communications					
Advanced Mail	AD12UR	$295	$150	(99)	
PC2622	PC13UR	395	239	(99)	
Reflection	RF11UR	525	295	(139)	
TermPlus	TE13NK	195	175	(99)	95*
Graphics					
Sketch	SK12NK	$175	$171		95*
Productivity Boosters / Games					
DOS Tools	DT12NK	$179	$169	129	
FilePlus	FE14NK	165	155	(99)	95*
GamesPlus	GA11NK	205	175	(159)	105*
HP Calculator	CL11NK	95	95		
HP Duette	DU13NK	195	185	(139)	95*
Shelp	SH12NK	110	105		55*
Squish Plus	SQ11NK	264	235	(199)	135*
Typing Whiz	TW12NK	145	135	(99)	95*
Programming Languages					
MSBasic	MS21UR	$331	$165	(99)	
Turbo Pascal 3	TP13NK	No longer published			95*
Spreadsheets and Database					
As-Easy-As	AS11NK	$215	$195	(159)	115*
Exec. Card Mgr	EC11UR	395	225	(199)	
Lotus 123,1A	LT14UR	495	249	(199)	
Lotus 123,2.01	LT15UR	625	395		
New Lotus,2.01	LT11HR	625	499		
SideWinder	SW12NK	135	125	(99)	
Word Processors					
Editor II	ED12NK	$195	$175	(99)	95*
Editor Pack +	FM17NK	823	599		
(Editor II, Webster, FormatPlus, FilePlus)					
Editor Pack	FM16NK	658	499		
(Editor II, Webster, FormatPlus)					
MMkr/TmMgr	MM21UR	245	119	(99)	
MSWord	MS20UR	394	199		
MultiMate	MM20UR	520	295	(199)	
WordPerfect 5	WD11NK	940	595	(495)	295*
Word Processing Utilities					
FormatPlus	FP13NK	$175	$165	(99)	95*
HPrint	HP12NK	175	171		95
Webster Speller	WB13NK	259	249	(199)	179*

* You must own the disk version of the product in order to use prices in the "Backup Price" column.

SOFTWARE ON DISK

Communications

CompuServe starter kit	CM11NS	$ 39.95	$ 35.95	
Kermit	KE11NS	19.00	19.00	
Relay Gold (Plus)	RG11NS	295.00	279.00	
TermPlus	TE12NS	99.95	79.95	(49)
Term110	TE11NS	99.95	79.95	
YTERM	YT11UC	135.00	49.95	

Database/Accounting Software

Condor 3	CR11NS	$495.00	$379.00	(299)
Condor Jr	CR13NS	99.95	89.95	
Dac-Easy Accounting	DC11NS	150.00	129.00	
Used dBase II	DB11UC	550.00	295.00	

File Transfer

HPDuette for P.Plus	DU11NS	$99.95	$89.95	
Link110	LK12NS	90.00	85.95	
Link Plus	LK11NS	90.00	85.95	
ReadHP	RD11NS	79.95	69.95	

Graphics

Flowcharting II+	FL11NS	$229.00	$199.00	
Log.Mouse P.Plus System	MS15NM	219.00	179.95	
PrintMaster (P.Plus)	PR11NS	79.95	69.95	
Sketch	SK11NS	80.00	75.95	
Sketch Halftone disk	SD11NS	9.50	9.50	

Learning Material for HP110, P.Plus

How to Use the HP Portables Video Tapes	VP11NM	$150.00	$119.00	(99)

Productivity Boosting Utilites / Games

BacTools	BC11NS	$49.95	$39.95	
DOS Tools	DT11NS	44.95	39.95	
FilePlus	FE12NS	69.95	59.95	(49)
GamesPlus	GA11NS	99.95	69.95	(49)
Norton Utilities Adv.	NU12NS	150.00	129.00	(99)
Norton Utilities	NU11NS	99.95	89.95	(79)
Private File	PF11NS	39.95	34.95	
Shelp	SH11NS	55.00	49.95	(49)
Squish Plus (P.Plus)	SQ11NS	129.00	99.95	(79)
Tiger Fox	TF11NS	32.95	29.95	
Time Manager (HP110)	SB11NS	9.50	9.50	(Free)
Typing Whiz	TW11NS	49.95	39.95	

Programming

Compiled BASIC (USED)	MS13UC	$425.00	$225.00	
FORTRAN (USED)	FO12U1	395.00	250.00	
MS BASIC (USED)	MS11UC	325.00	165.00	
MS GW BASIC (USED)	GW11UC	425.00	250.00	
Programmer's Tools (U)	PT11UC	325.00	175.00	
Turbo Pascal 5.5. P.Plus	TP52NX	219.00	175.00	
Upgrade for Plus, HP150 (must own IBM PC Turbo 5.5, honor license)	TP15NS	69.00	69.00	
T.Pascal 3.0 Optimizer	TP17NS	125.00	119.00	

Project Management

Milestone	ML11NS	$ 99.95	$ 89.95	
PertMaster for HP110	PR11NS	695.00	499.00	
PertMaster for P.Plus	PR12NS	695.00	499.00	

SpreadSheet and Statistics

101 Macros	MC11NS	$69.95	$62.95	
As-Easy-As	AC11NS	99.95	79.95	(59)
Lotus 123, v2.01 / Symphony				
P.Plus Software Driver	LT14NS	69.95	59.95	
SideWinder and Utilities	SW13NS	79.95	69.95	
SideWinder	SW11NS	69.95	59.95	(49)
Statistix 2.0	ST11NS	169.00	159.00	

Word Processors

The Editor II	ED11NS	$ 99.95	$ 79.95	(49)
Editor Pack	FM16NX	259.00	195.00	
(Editor II, FormatPlus, Webster Speller)				
Editor II/Formatter	ED13NX	119.95	99.95	
PlusPerfect	WD14NS	150.00	129.00	(99)
VI (Unix-like editor)	VI11NS	195.00	169.00	
WordPerfect 4.2 P. Plus	WD18NS	435.00	339.00	
WordPerfect 5.0 P. Plus (Includes PlusPerfect)	WD17NS	645.00	395.00	(299)

Word Processing Utilities

Format110	FM12NS	$39.95	$35.95	
FormatPlus	FP11NS	79.95	69.95	(49)
Formatter	FM11NS	59.95	49.95	
HPrint	HP11NS	80.00	75.95	
MemoMaker Pack	FM14NX	159.90	125.00	
(Format Plus,Webster Spelling Checker)				
PrinterTalk	PT11NS	49.95	44.95	
PrinterTalk, Format110	PT12NS	89.90	59.95	(49)
RightWords Dict. Ext.	RW12NS	29.95	29.95	
RightWriter	RW11NS	95.00	89.00	(79)
Webster's Speller	WB11NS	79.95	69.95	(49)

ACCESSORIES, SUPPLIES

BATTERIES

HP110 Battery[5]	BT12HC	$39.00	$39.00	
HP9114 Battery	BT13HC	65.00	65.00	
Portable Plus Battery[5]	BT11HC	59.95	59.95	
Refurbish a 9114 Battery	BT11NG	35.00	35.00	
ThinkJet Battery	BT14HC	55.00	55.00	

[5] Includes instructions, torx screwdriver, nut driver

CABLES

92221M ser.modm 110,+	CA13HC	$42.00	$42.00	
HP92221P ser.prn 110,+	SC13HC	42.00	42.00	
HP-IL Cable, 1 Meter	HC11UM	8.00	8.00	
HP-IL Cable, 1/2 Meter	HC12UM	6.00	6.00	
HP-IL Cable, 5 Meters	HP11UM	10.00	10.00	
Serial modem 110,Plus	WM14NM	42.00	20.00	
Serial printer 110,Plus	SC13NM	42.00	27.95	

CARRYING CASES

HP vinyl 110, + -NEW	BV11HC	29.00	29.00	
HP leather 110,+ -USED	CS11UC	89.00	49.00	
HP fabric system -USED	SC11UC	110.00	59.95	
Targus leather system	TA11NM	199.95	179.00	
Targus nylon system case	TA12NM	99.95	89.95	

POWER SUPPLIES, RECHARGERS

110, +, 9114, TJ charger	RC16UC	$20.00	$20.00	
110 (European charger)	ER11HC	25.00	25.00	
HP9114 Empowerer	PR12NM	99.95	89.95	
Mobile Recharger	PR11NM	69.95	59.95	
Power Cube	PR13NM	89.95	79.95	

PRINTER, DISK SUPPLIES

3.5" disks (10), case	DS11NM	$44.90	$29.95	
DeskJet ink cartridge	CT11HC	19.95	19.95	
HP92261n inkjet 2500 z	TJ12HC	64.95	59.95	
HP51630a inkjet 500 z	TJ13HC	19.95	19.95	
TJ inkjet paper cart.	TJ14HC	10.95	10.95	
TJ plain paper cartridge	TJ15HC	10.95	10.95	

UPGRADES / REPAIRS

256K to 512K Plus Upgr.	256KNG	$1100	$ 395	
128K to 512K Plus Upgr.	128KNG	1100	395	
FastPlus (CPU upgrade)	FA11NG	250	199	(159)
HP110 keyboard repl.	KE11UC	225	195	
HP110 screen replace.	LC11UC	435	195	
P.Plus screen upg/repl.	GO11NG	350	195	
P.Plus keyboard repl.	KE12UC	320	250	
Repairs		CALL	CALL	

LS/12, PORTABLE VECTRA PRICE LIST

Product	Part Num.	Retail Price	Sub. Price

LS/12 SPECIFIC PRODUCTS

LS/12 COMPUTERS

Used LS/12, 20 Meg Drive	LS11UM	Call for pricing, avail.	
Used LS/12, 40 Meg Drive	LS12UM	Call for pricing, avail.	

LS/12 Memory

1 Meg EMS Memory	EM11NH	$ 295	$ 285
4 Meg EMS Memory	EM12NH	1195	1095

LS/12 Internal Modems

HPD1502a 2400 Modem	IM11HL	$449	$369
Datastar 5, 2400/MNP	DA11HL	599	539

LS/12 Drives

Weltec 5.25" Drive	WE11NH	$349	$299
LapTape tape backup	LA11NH	795	695

Additional LS/12-Specific Products

Expansion Chassis	EX11NH	$499	$449
Numeric Keypad	NU11NH	129	115
HPD1057A Battery	NB11HL	299	269
HPD1058A Recharger	BC11HL	109	109
HP Carrying Case	CC11HL	99	80
80287 math coprocessor	MA11HL	649	575

PORTABLE VECTRA CS SPECIFIC PRODUCTS

PORTABLE VECTRA CS COMPUTERS

New Portable Vectra CS 20	VE13HC	$3595	$1795
Used Portable Vectra CS 20	VE17UC	Call for pricing, avail.	
Used Portable Vectra CS	VE12UC	Call for pricing, avail.	

Internal Modems

HPD1003A 2400 Baud	VE16UC	Call for pricing, avail.
HPD1002A 1200 Baud	MO11UC	Call for pricing, avail.

Serial card and EMS Memory

Dual serial/EMS Card	AD11HC	Call for pricing, avail.	
1 Meg EMS memory	EM11HC	$595	$295

External Hard Disk

TravelDisks: hard disk, P. Vectra CS bus extender card, cable			
TD-10 (10 Meg) new	TD11NH	$ 995	$ 945
TD-10 (10 Meg) refurbished	TD12NH	650	595
TD-20 (20 Meg) new	TD13NH	1095	995
TD-20 (20 Meg) refurbished	TD14NH	775	725
TD-30 (30 Meg) new	TD15NH	1195	1095
TD-30 (30 Meg) refurbished	TD16NH	900	835
TD-40 (40 Meg) new	TD17NH	1295	1195
TD-40 (40 Meg) refurbished	TD18NH	1100	995
TD-100 (100 Meg) new	TD19NH	1895	1795
TD-100 (100 Meg) refurbished	TD20NH	1500	1395
TD-250 (250 Meg) new	TD21NH	3495	3195
TD-250 (250 Meg) refurbished	TD22NH	CALL	CALL
Extra P.Vectra Bus Extender	TD23NH	80	75
Extra cable	TD24NH	110	99
Extra IBM Bus Extender card	TD25NH	50	47

Other Vectra CS Products

HP-IL Adapter Card	HP16NM	$245.00	$235.00
HPD1007A Soft Case	CS12HC	Call for pricing, avail.	
HP69009 Battery	BA11HC	250.00	225.00

Monitors for Vectra CS (and LS/12)

Monochrome Monitor	VI12HC	129	119
CGA Monitor	MO12HC	399	299
EGA Monitor	MO13HC	599	479

THE PORTABLE PAPER

(Subscribers Disks Only Available With Subscriptions)

1991 Subscription & Disk	PPN1PS	$55.00
For Vectra CS, 1988-91 issues, disks	VE11PK	109.00
For Vectra CS 1988-90 issues, disks	PP15PB	79.00
For LS/12 1989-91 issues, disks	LS11PK	89.00
For LS/12 1989-90 issues, disk	PP12PK	59.00
Individual back issue	PP99PB	9.20
PP Binder Vol.3	PB13NM	7.00
PP Binder Vol.4	PB14NM	7.00
PP Binder Vol.5	PB16NM	7.00

Refurbished LS/12, P.VECTRA CS PRINTERS

New Diconix - parallel	DT11NH	$ 519	$ 399
New Diconix - serial	DT12NH	539	415
Serial HP2225D ThinkJet	TJ14UC	495	295
Parallel HP2225C ThinkJet	TJ11U1	495	295
DeskJet Printer, cable	DJ11UC	795	425
DeskJet Plus	DJ12UC	995	CALL
PaintJet	PA12UC	1395	CALL
LaserJet 500 Plus	LA13UC	4200	CALL
LaserJet IID	LA12UC	3795	CALL
Rugged Writer	RU11UC	1695	CALL

LS/12, P.VECTRA CS PERIPHERALS

Portable Modems / FAX

WorldPort FAX/Modem 2496	WF11NH	$ 699	$ 599
WorldPort Modem 1200	WM11NH	199	179
WorldPort Modem 2400	WM12NH	359	319
WorldPort M. 2400/MNP	WM13NH	499	425
WorldPort serial cable	WM14NM	30	20
WP 1200 Upgrade kit	WM13NG	199	179
WP Acoustic coupler	WM16NH	79	79

External hard drive / tape backup

Weltec Serial 20 MB Hard Disk	WE12NH	$1099	$ 899
Valitek Serial and Parallel Port Tape backup units			
60 Meg Valitek	VA11NH	1695	1495
160 Meg Valitek	VA12NH	2395	1995

Other LS/12, P.Vectra CS Peripherals

EtherNet Adapter	ET11NH	$695	$629
Logitech Mouse	MS14NM	119	99
Statpower PC100+ Inverter	ST11NH	179	169

LS/12, PORTABLE VECTRA SOFTWARE

The Editor II	ED11NS	$ 99.95	$ 79.95
Condor 3 for IBM	CR11HM	495.00	379.00
LapLink	LA11NS	139.95	119.00
NoSquint	NO11NS	39.95	37.95
Squish Plus	SQ12NS	99.95	89.95

CALL FOR CONSULTATION AND PRICING
ON OTHER IBM COMPATIBLE SOFTWARE PRODUCTS

LS/12, P.VECTRA ACCESSORIES

Printer Supplies

TJ plain paper cartridge	TJ15HC	$10.95	$10.95
TJ inkjet paper cartridge	TJ14HC	10.95	10.95
HP92261n inkjet 2500 z	TJ12HC	64.95	59.95
HP51630a inkjet 500 z	TJ13HC	19.95	19.95
DeskJet ink cartridge	CT11HC	19.95	19.95

Disks

10 3.5" disks and case	DS11NM	$44.90	$29.95
10 3.5" 1.44M disks, case	DS12NM	69.95	59.95

Cases

Targus leather system	TA11NM	$199.95	$179.00
Targus nylon system case	TA12NM	99.95	89.95

Cables

Standard Parallel Cable	PL11NM	$29.95	$24.95
P.Vectra 25-pin serial prn	SE12HC	$29.95	$24.95
9-pin AT serial printer cable	SE11HC	$29.95	$24.95

ADDITIONAL COMPUTERS

(CALL FOR INFORMATION AND PRICES)

REFURBISHED HP150 COMPUTERS, DRIVES, PERIPHERALS, ACCESSORIES, SOFTWARE:

- Free HP150 Catalog CAT150 0.00 0.00

TOSHIBA LAPTOPS (Call for prices)

Notebook PCs

- ***T1000*** -- 80C88 4.77MHz 6.4 lb laptop with 512K RAM (expandable to 1.2MB) and a built-in 720K 3.5" floppy drive, CGA-compatibile 80x25 LCD display with RGB/monochrome monitor port, 5 hour battery.
- ***T1000SE*** -- 80C86 9.54MHz 5.9 lb laptop with 1MB RAM (expandable to 3MB), a built-in 1.44MB floppy drive, 80x25 LCD display, CGA compatible, 2 hour removable battery.
- ***T1000XE*** -- 80C86 9.54MHz 6.2 lb laptop with 1MB or RAM (expandable to 3MB), internal 20MB hard drive (external disk drive optional), 80x25 LCD display, CGA compatible, 2 hour removable battery pack.
- ***T1200XE*** -- 80C286 12MHz 7.2 lb laptop with 1MB RAM (expandable to 5MB), 20MB internal hard drive, built-in 1.44MB 3.5" disk drive, 80x25 LCD display, CGA compatible with CGA/RGB monitor port.

Battery-Powered PCs

- ***T1200HB*** -- 80C86 9.54MHz 11.4 lb portable with 1MB RAM, 20MB internal hard drive, built-in 720K 3.5" disk drive, 80x25 LCD display, CGA compatible with RGB and monochrome monitor ports.
- ***T1600*** -- 80C286 6/12MHz 12.9 lb portable with 1MB RAM (expandable to 5MB), 20MB or 40MB internal hard drives, built-in 1.44MB 3.5" disk drive, EGA quality LCD display with EGA color monitor port.
- ***T3100SX*** -- 80C386 16MHz 14.9 lb portable with 1MB RAM (expandable to 13MB), 40MB/80MB hard drive, built-in 1.44MB 3.5" disk drive, high-res. display, VGA compatible display system with VGA monitor port. Up to 3 hours battery life.

AC Powered PCs

- ***T3100e*** -- 80286 6/12MHz 13.2 lb portable with 1MB RAM (expandable to 5MB), 40MB hard drive, 1.44MB, 3.5" disk drive, high-res. display, and a CGA/RGB color monitor port.
- ***T3200*** -- 80286 6/12MHz 19 lb portable with 1MB RAM (expandable to 4MB), 40MB hard drive, 1.44MB 3.5" floppy drive, high-res. display, EGA/CGA color monitor port.
- ***T3200SX*** -- 80386SC 16MHz 17 lb portable with 1MB RAM (expandable to 13MB), 40/120MB hard drive, 1.44MB 3.5" floppy drive, high-res. display, VGA monitor port.
- ***T5100*** -- 80386 16MHz 14.6 lb portable with 2MB RAM (expandable to 4MB), 100 MB hard drive, 1.44MB 3.5" floppy drive, high-res. display, EGA/CGA monitor port,
- ***T5200*** -- 80386 20MHz 18.7 lb portable with 2MB RAM (expandable to 14MB), 40MB or 100MB hard drives, 1.44MB 3.5" floppy drive, high-res. display, VGA monitor port.
- ***T8500 (desktop)*** -- 80386 25MHz 22 lb with 2MB RAM (expandable to 14MB), 100MB-200MB hard drive, 1.44MB 3.5" floppy drive, VGA display adapter.

!! NEW !!

REFURBISHED HP LaserJets

LaserJet II
LaserJet IID LaserJet IIP

CALL TODAY FOR PRICE

PORTABLE VECTRA VIEWS

[Vectra Views contains information which specifically pertains to the Portable Vectra CS and Vectra LS/12 Laptop PC. In this column we note the latest developments in Portable Vectra and LS/12 products from Hewlett-Packard, Personalized Software, and other third parties, and include specific tips for Vectra and LS/12 users. Please feel free to contribute on disk or letter to Personalized Software, P.O. Box 869, Fairfield, IA 52556, call (515) 472-6330, or Fax (515) 472-1879.]

Zenith Extends SupersPort 286 Warranty to 2 Years

LS/12 Zenith's normal one-year warranty on the SupersPort 286 has been extended to two years to deal with a loose-chip problem that may have affected all units manufactured in 1988-89. (Hewlett-Packard OEM'd the SupersPort 286 from Zenith and called it the LS/12). It seems that chips installed in sockets on the motherboard of the SupersPort 286 can vibrate loose, or lose their protective coating and corrode. A number of problems have been reported by users that seem linked to this condition. They include:

- shaky screen display;
- blank, bright blue screen;
- fuzzy characters;
- missing rows or columns in the display;
- hard-drive failures preventing booting.

Zenith dealers have reported that the model has been brought in for service more often than other Zenith machines. Because the loose chips cause such a wide variety of problems, Zenith will replace the motherboard of any malfunctioning SupersPort 286.

If you have an LS/12 and are experiencing any of the above symptoms, contact your HP dealer to arrange for repairs. HP will cover the cost of the repair and return postage to you. You will have to pay for shipping your LS/12 to the appropriate HP Service Center. If replacement assemblies in addition to the original manufacturing problems are needed, the extra cost will be charged to the customer or the customer's service contract. ■

PV LS/12 This Doctor Makes Housecalls

By Richard Hall

An unfortunate event that has probably never happened to anyone else in the whole world happened to me at the worst possible time two weeks ago while I was trying to finish a work-related document at home on my trusty old XT Turbo, with my wife upstairs thumping on the floor with a broom handle, reminding me that it was midnight and I should be in bed, and our cat outside my window persuading the Pelton's cat that it should not expect a handout at our house without a fight.

My hard drive corrupted!

I've always hated that nasty little DOS "Abort? Ignore? Retry?" message. That's what I liked about hard drives, you never got that message. But that night I did.

So I ran the DOS CHKDSK command and the screen went blank for the longest time, which did not bode well! Finally a message came up telling me that there was a problem with my FAT (the "File Allocation Table" is found at the beginning of any disk and keeps track of where on the disk a file is, or different parts of a file are, located.)

I went to sleep.

Next day I asked Hal about it. He gave me a floppy disk and said, "Put it in and type NDD." I like simple fixes!

NDD stands for "Norton Disk Doctor," one of the many fine programs that can be found on The Norton Utilities 4.5 Advanced Edition. The Disk Doctor automatically diagnoses and corrects a variety of problems that can occur on both hard and floppy disks. NDD runs a number of tests, including tests of the integrity of all copies of the File Allocation Table; a number of tests designed to probe the integrity of the boot record; and a test of the entire disk directory structure. Over a hundred individual tests are performed.

I went home, booted up, put the disk in my floppy drive and typed **NDD**. I was presented with three choices: Diagnose Disk, Common Solutions, and Exit Disk Doctor. I chose to diagnose the disk and selected the hard drive.

NDD informed me that one of my FAT's was corrupted (I never knew a disk had more that one FAT). NDD politely asked me if I would like it fix the problem, I typed "Y" and that was it.

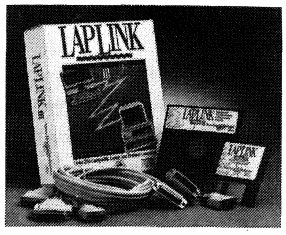
Actually that wasn't the end. NDD next gives you the option of doing a Data Sector Test. I didn't have to do it in this case, but I did anyhow. This is a very long and boring test, but my 4-year-old son Robert loved it. NDD displays a map of your hard disk -- a grid of boxes. Then a little square cursor-shaped box goes slowly through the map, looking for bad sectors. Robert thought it was like Pac-Man. Every time NDD found a bad sector it flashed a message and Robert pressed the Return button, which caused NDD to move as much of the contents of the bad sector as possible to a new location before permanently marking the sector as "bad" so no more information will be stored there.

After that NDD ended and my hard disk worked.

When I put my son to bed later that night, he wanted me to tell him a story about the Bad Sectors and the Disk Doctor. "So the good Disk Doctor found the Bad Sectors and took away all of their information and gave it to the Good Sectors. Then he marked all of the Bad Sectors with a large 'X' so nobody would ever ..."

EIGHT ways to make your LS/12 Vectra or Portable Vectra CS more productive!

Transfer your files to another PC without hassle!

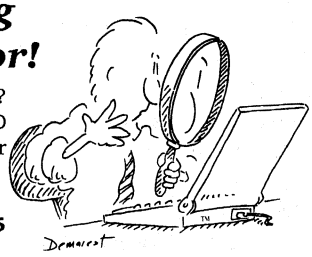


Highly rated **LapLink** software offers high-speed file transfer between your Vectra and another IBM PC compatible using **LapLink**'s special cable. Versatile (works with parallel and serial ports) and easy to use (simple manual or automatic file tagging).
LapLink for *PV, LS/12* **la11ns**
Retail: $139; Subscriber: $119

Access any Ethernet network with your Vectra!

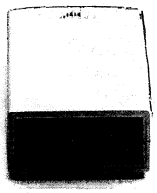
Xircom Pocket Ethernet Adapter attaches to your Vectra (or any PC compatible) parallel printer port. It lets you connect to any Ethernet LAN, supporting Novell NetWare versions 2.0a and higher. It's 5 oz: the size of an audiocassette case.
Ethernet Adapter, *LS/12,PV* **et11nh**
Retail: $695; Subscriber: $629

No more squinting to find your cursor!



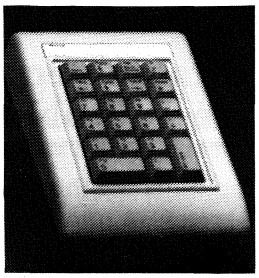
Why search for a faint underline? Make Vectra cursor BIG and BOLD with **NoSquint** and see the cursor clearly without strain.
No-Squint *PV, LS/12* **no11ns**
Retail:$39.95;Subscriber:$37.95

Back up your LS/12 hard disk files to tape!



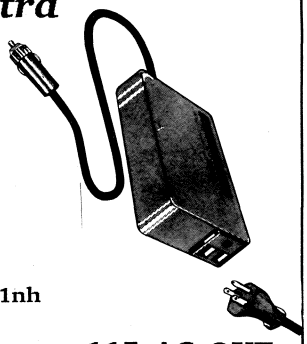
Tallgrass Technologies top-quality tape backup unit backs up LS/12 #20 or 40 Meg hard disk. Connects via LS/12 floppy disk connector in back. HP lab tested and approved.
LapTape Backup Unit, *LS/12* **la11nh**
Retail: $795; Subscriber: $695

Fast numeric entry for your LS/12!



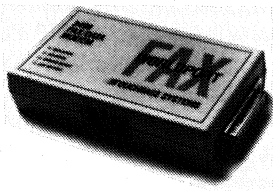
The **Zenith Numeric Keypad** plugs into the right side of your LS/12. Calculator-style numeric keypad simplifies spreadsheet and database numeric entry tasks.
Numeric Keypad, *LS/12* **nu11nh**
Retail: $129; Subscriber: $115

Recharge your Vectra while driving!



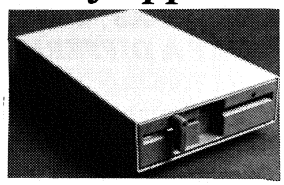
Plug your Vectra recharger into the 4.5" x 3.5" x 1.3", **1 lb, PC100+ StatPower Pocket Power Inverter**. Recharge your Vectra battery by connecting the PC100+ to your car's cigarette lighter. The PC100+ provides instant 115V power from any 12V source.
StatPower PC100+ *PV, LS/12* **st11nh**
Retail: $179; Subscriber: $169

Fax your files <u>anywhere, anytime!</u>



Now you can have both a 9600 bps Group III facsimile and a full-featured 2400 bps modem in one completely portable, pocket-sized unit! Share the **WorldPort 2496** among different PC's, or use it just for your work and travels. Connects to Vectra serial port and can operate from its own battery or from AC power.
WorldPort 2496 *PV,LS/12* **wf11nh**
Retail: $699; Subscriber: $599

Access files from 5.25" floppies using your LS/12



Weltech 5.25" disk drive plugs right into the LS/12 external drive port in back of LS/12. Can read from and write to 360K and 1.2M floppy disks.
Weltech 5.25" drive*LS/12* **we11nh**
Retail: $349. Subscriber: $299

NEW VERSION OF NORTON UTILITIES

Recently, Norton announced that version 5.0 is shipping, so the product has gotten even better.

Norton Utilities 5.0 retails for $179. Subscribers to *The Portable Paper* can purchase it through Personalized Software for $159. Be sure to specify Norton Utilities 5.0 for the Vectra. ■

Portable Vectra CS Screen Problems

PV Keep watching this column for news of the Portable Vectra CS screen. A number of customers have complained about vertical or horizantal lines appearing on the screen. HP is reportedly investigating the problem for a possible fix. ■

Through the Looking Glass

By Ed Keefe

This article is a collection of reflections on the following products for the HP Portable Plus (and PC- Compatibles):

1. As-Easy-As, version 4.00P,
2. VDE version 1.53,
3. ROMBO, EPROM Burning Kit,
4. The Classical Classifier, an outliner,
5. Stereo Shell, version 3.00,
6. Turbo Assembler, version 2.00,
7. MIX-C Version 2.00.
8. The 1991 Subscribers' Disk for the Plus.

P+ PV LS/12

AS-EASY-AS 4.00P
WHAT A DIFFERENCE A SINGLE LETTER MAKES

I read Tom Page's remarks about As-Easy-As in the last issue of the Portable Paper. I found some of Tom's comments about the shortcomings of the program to be puzzling. Then it dawned on me that he was probably working with version 4.00 N of As-Easy-As. Both Tom and I "beta tested" As-Easy-As 4.00 N for Personalized Software to make sure it worked properly on the Portable Plus.

My current experience has been with version 4.00P. The change from "N" to "P" represents a change for the better. Version 4.00 P of this amazing program is slightly more powerful than the previous version. All known bugs have been eliminated and it now works flawlessly on the Plus.

I have been an As-Easy-As fan since its initial release. Version 4.00P of As-Easy-As is, undoubtedly, the best of the 1-2-3 clones around. It gives more bang per buck than either Quattro or VP-Planner. I have even gone so far as to retire 1-2-3 in favor of As-Easy-As:it's that much better, in my estimation. Here are a few instances of where the program has been improved.

As-Easy-As still presents its menus in a column rather than in a row across the top of the screen. This is probably done to avoid being hassled by Lotus Corporation's staff of lawyers.

If you want the menus to appear across the top of the screen, just start As-Easy-As with the command, **aseasy /p**. The /P stands for "Panel Menu". The worksheet still will not look like 1-2-3. However, you won't have to retrain your eyes to look for the menu in a different spot.

There are hints, in the Users' Manual, on how to make As-Easy-As look more like 1-2-3. I followed the hints and designed a macro program that does exactly that, but don't tell Lotus Corp.

If you prefer a pull-down menu, be aware that the menu will appear on the left of the worksheet. Losing sight of the data in column A may be frustrating. However, if you press the period [.] key, the pull-down menu will hop to the right side of the display. If you want the pull-down menu to appear always on the right side of the display, just save the setting in the Configuration file. (By the bye, if you want the menu to pop-up in the middle of the screen, there is even a way to make this happen.)

Another visual nuisance is the fact that the letters designating the columns are right-justified rather than centered. Also the column header-divider is a "/" rather than a blank. Both of these visual nuisances may be eliminated during startup by using command line switches. Type **aseasy /ctr /dv=** . This will center the letters in the column and extinguish the column dividers. Once you have the worksheet looking the way you want it, save the settings in the ASEASY.CFG file and keep this file in the same directory as ASEASY.EXE. The next time you execute ASEASY, you won't need to use the same command line switches. This is a very handy feature, I think.

Having said that, let me add that the /CTR command can't be saved in the ASEASY.CFG file. Instead, use a simple batch file, AEA.BAT, containing the following single line: **aseasy /ctr /auto=%1**. Now, instead of using ASEASY to startup, use the simpler AEA command.

Furthermore, if you put the filename of a worksheet following AEA, the /AUTO=%1 switch will automatically load the file into As-Easy-As. Isn't that better than 1-2-3's AUTO123.WKS?

Some of the advanced features in As-Easy-As caught my attention and have made me a devoted fan of the program. For instance, AEA has the ability to have several worksheets in memory at the same time. It also has the ability to link one worksheet, in memory, with other worksheets on disk.

Erased your files? Get them back with The Norton Utilities!

"THE NORTON UTILITIES are among the most helpful utilities I've run across. I use them myself every day, and in my opinion, they're a must. Here's why."

Hal Goldstein, Publisher
The Portable Paper

HOW TO RESTORE DELETED FILES

It happens to the best of us. One slip of a finger and a whole week's worth of text or data is past history. *But not if you have THE NORTON UTILITIES*!

Just type **qu** (for quick unerase), give the first letter of the name of the file you erased, and *the file gets restored.* Miraculous as it sounds, in many cases that's all there is to it!

HERE'S HOW IT WORKS

How can a deleted file get unerased? Simple. The file isn't really deleted in the first place. When you delete a file, all that actually gets erased is part of the file's directory entry. (That's why it only takes an instant to delete an entire file.) Without a directory entry, DOS can't find the file, but THE NORTON UTILITIES can.

Now, what about those cases where you can't possibly recover a file because you've already partially overwritten it with other files? Surely THE NORTON UTILITIES can't help you then?

Wrong—they can! THE NORTON UTILITIES won't recover the entire file, of course, but they *can* help you restore the portions of the file that still remain on the disk.

It's done with a powerful utility called **nu** that lets you display, change, and capture to a file any information on any disk. In complex cases you may need to do some detective work, but **nu** will help you find whatever remains on the disk, thereby saving you from countless hours of retyping lost data.

"Indispensible."
—PC Magazine

"You'll bless this disk."
—Peter McWilliams
(The Personal Computer Book)

"Don't compute without it."
—The New York Times

POWERFUL FILE MANAGEMENT COMMANDS

In my opinion, *the ability to recover lost files alone makes THE NORTON UTILITIES well worth the price.* But there's even more to the package: THE NORTON UTILITIES are also an excellent *disk management system.* Here are some examples of what you can do:

Let's say you want to sort directories and files physically on disk—either by name, extension, size, date, time, or by any combination of these. Just use the **ds** (disk sort) command. I use this one to sort my electronic disk files by size all the time. Then when I display the directory, the larger files come at the end of the list, and I can see at a glance which ones to move elsewhere to free up any needed amount of disk space.

Or let's say you remember putting the phrase "a penny saved is a penny earned" into a text file on your floppy or hard disk but you can't remember which file it was—or even which directory. How to find it? *No problem.* Just type **ts** (for text search), specify the phrase, and the program will display every occurrence of the phrase, identifying each occurrence by directory and file.

Or let's say you can't remember which subdirectory you put a given file into. Instead of hunting for the file manually, just type **ff** (find file) and specify the name of the file and the directories to search through. The program does the rest.

Other useful features include the **fa** command, which lets you change file attributes (for example, to convert HP150 read-only files into erasable files), and the **fs** command, which tells you the total file size of a group of files (I often use it to find out the total disk space occupied by my Lotus worksheet ".WKS" files or by all my text files from a given project).

CUSTOMIZED TO YOUR COMPUTER

Because of their great helpfulness and ease of use, THE NORTON UTILITIES are a best-seller in the IBM PC market. Personalized Software is authorized to distribute them on 3½" disk for users of the HP150, HP110 and Portable Plus. (All it takes is a few keystrokes to customize THE NORTON UTILITIES to your machine; just follow the simple customization instructions included on the disk.) Also included in our package are the standard 5¼" disk sold by Peter Norton for IBM PCs.

THE NORTON UTILITIES are a time-saver for you and a life-saver for your data. Use them just once and you'll wonder how you ever did without them. Order your copy at no risk today.

THE NORTON UTILITIES
DATA RECOVERY
DISK MANAGEMENT

THE NORTON UTILITIES 4.0 . . $99.95
Portable Paper Subscriber Price . . . $89.95
PRODUCT NO. NU11NS

THE NORTON UTILITIES ADVANCED EDITION . . . . . $150.00 (includes Version 4.0)
Portable Paper Subscriber Price . . $129.00
PRODUCT NO. NU12NS

RECOMMENDED FOR:			
HP110 Portable	•	Portable Vectra	•
Portable Plus	•	HP150	•
IBM PC and compatibles			•

VERSION 4.0 OR ADVANCED EDITION —WHICH ONE SHOULD YOU BUY?

If you have an HP110, The Advanced Edition does not work. If you have a Portable Plus or HP150, The Advanced Edition of The Norton Utilities includes all of Version 4.0, plus many additional features. Among these are:

1. Speed Disk: Packs the files on a floppy, electronic, or hard disk more efficiently. This reduces disk head wear and significantly reduces the time it takes to save or retrieve a file.

2. Advanced "NU" Program: Undeletes blocks of text from disks that have become "corrupted" (unreadable by DOS). Also lets you access and modify the DOS directory and F.A.T. table.

3. Format/recover: Restores all the files on a hard disk if you have accidentally reformatted it. (Note: this feature does not work on the HP150 or Portable Plus.)

Our recommendation: If you have a hard disk, or want to be able to manipulate directories, or need to access ASCII data from non-HP formatted disks, use the Advanced Edition.

When the current worksheet is changed, the changes are, automatically, reflected in the disk worksheets. But wait, there's more! As-Easy-As has the ability to let you write your own FUNCTIONS. For example, I noticed that AEA does not have an @XOR() (exclusive OR) function. So, using just the information on the help screen, I was able to create such a function and add it to the worksheet. Given this ability, I have suggested to TRIUS that they consider producing a Reduced Instruction Set spreadsheet. The kernel of the worksheet could be much smaller than the 200k byte size it is now. The user could import only those functions that were necessary to drive a given worksheet. If you didn't need TRIG functions, why keep them around as overhead? The memory space saved would allow for bigger worksheets.

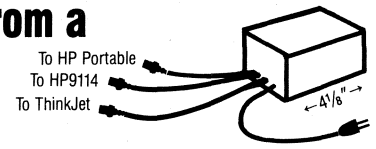
Furthermore, As-Easy-As lets programmers create ADD--INS. These are somewhat like the add-in programs for 1-2-3, but they are certainly different. For one thing, AEA add-ins must be written in Turbo Pascal 5.5 (or greater!!). The add-in programs also need a special .TPU file from TRIUS. This .TPU file gives your program the ability to interact with data from the worksheet. I've tried my hand at one add-in, got it to work and then discovered that I could do the same thing with a small macro program.

I also like playing with the built in Goal-Seeking function in As-Easy-As. Using the Goal-Seeker function lets me work a spreadsheet "in reverse." It reminds me of the ability of the HP41 calculator to perform "interchangeable solutions."

The current version of AsEasy features a single screen text editor. It lets you make changes to a spreadsheet that would, ordinarily, have to be done using the F2 (Edit) command. This feature has more promise than polish, but it does work. Be careful, however, when editing lines that begin with '\= or any such command that causes As-Easy-As to repeat characters in a cell. The editor lops off the single quote and you wind up with a cell full of === signs.

And speaking of promises of things to come... As-Easy-As has most of the code needed to allow your spreadsheet to reach the outside world via the Serial port of the Plus, hook into test equipment and directly pull real- time data into the spreadsheet. I have not been able to test this out. However, if Hal can call in a few markers, we may be able to get HP Corvallis to lend us an HP 48SX Calculator. I'm eager to make the Plus communicate with the 48SX. If that can be done, then As-Easy-As could use the 48SX as a "math coprocessor." However, if some industrious engineer beats me to the punch on this one, I won't object.

Power your Portable, ThinkJet, and HP9114 from a single wall outlet.



Can't plug your Portable, ThinkJet, HP9114, and HP hand-held into the same wall outlet because the recharger cubes are too big? Here's the solution:

The Power Cube/Recharger from Personalized Software.

The Power Cube has four power cords. Three are HP cords that plug into your HP Portable, ThinkJet, HP9114 disk drive(s), or HP hand-held (HP41, 71, 75, series 80, etc.). The fourth is a conventional AC cord that plugs into the wall and powers the other three.

Get rid of that tangle of extension cords, power strips, or whatever else you've been putting up with.

Order a Power Cube/Recharger today.

Power Cube/Recharger $89.95
$79.95 for Portable Paper subscribers.

© Copyright 1987 Personalized Software

may be directly entered into the editor using the ExtChar and numeric key pad. (On the Plus, you can do this, if you remember to invoke the imbedded key pad first.) You can still use the **ExtChar G** command to pick from an abbreviated list of characters.

- There is a new print control: **^PG** causes an immediate pause during printing. This allows you to align the platen for printing on various kinds of forms.
- There is a new filemode **/M**, which supports the disk file format of Microsoft Word 5.0. In addition, the **/P** modecan now handle files created by WordPerfect 5. The **/X** switch allows importing and exporting files using the XYwrite file format.
- The display of fixed (hard) tabs, previously set at 8 column intervals, is now adjustable to 4, 8, or 16.
- The Print command (^KP) now has a new "S" option to suppress page numbers or headers on the first page of output.
- All in all, for its small size, its cost (still free for personal usage) and its advanced features, VDE continues to blow the competitors out of the water.
- The latest release of VDE will be sure to appear on the 1991 Subscribers' Disk for the Plus. But more of that later.

P+ PV LS/12

LATEST RELEASE OF THE VIDEO DISPLAY EDITOR

VDE, my favorite text editor/ word processor for the HP Portable Plus, continues to improve with age. The most recent release is version 1.53. Some enhancements include the following:

- Line graphics characters and foreign language characters

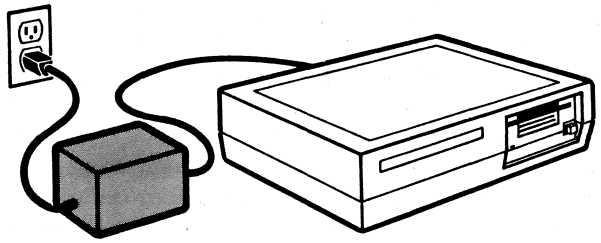
P+

ROMBO -- THE MANUAL

Like some of you, I have received my copy of the Users' Manual for the ROMBO ROM burning kit. As of this writing, I have not yet received the ROMBO kit. I've read the manual, front to back, and I tip my hat to the folks at Personalized Software for a job well done.

All the information for burning ROMs for the Plus has been around for many years. But that's like saying, "Here's a sack of flour. If you sift through it long enough, you may

THE HP9114 EMPOWERER



If you've been frustrated trying to use your HP9114 external disk drive only to have the battery quit before you've finished your work, then you know the problem. Now you need the solution.

THE PROBLEM:

The charge on your HP9114 battery doesn't last long enough for you to do all you'd like to. For that matter, in some cases it doesn't last long enough to do *half* of what you'd like to.

According to Hewlett-Packard, you get up to 40 minutes of continuous usage before the battery dies. We've never gotten more than 20. Just formatting disks, transferring files, or running disk-intensive software and getting it to work can be a major triumph.

Plugging in the HP9114 doesn't help, either. That only recharges the battery—it doesn't let you keep working.

WE HAVE THE SOLUTION:

The official HP suggestion is to buy another battery pack and keep both plugged in. When one loses power, replace it with the other. This seems clumsy to us. What if you want to do several hours of disk intensive work? **At Personalized Software we have a better solution—the HP9114 Empowerer.**

The Empowerer is special power supply that will allow your HP9114 disk drive to run forever. Just remove the battery pack, and plug The Empowerer into the open slot and into your wall outlet. It's that easy!

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Portable Plus	•
Portable Vectra	
HP150	
IBM PC and compat.	

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*H*ow many times have you wished you had a second external disk drive? The Portable Equipment Exchange, a division of Personalized Software, is selling HP9114A units including power supply at a substantial discount. See enclosed four-page brochure for details.

be able to figure out how to bake a loaf of bread."

The authors of the Users' Manual for the ROMBO Kit (a group effort involving Hal Goldstein, Rich Hall, Larry Baldosier, and Ron Chase, with proofing help from Glen Frank) have presented us with a Cook Book for baking EPROMS. That in itself is no small feat. Beyond this, they have done it in style: pictures, diagrams, suggestions, what to try and what not to try.

Sad to say, there have been several delays on the part of Personalized Software's suppliers. Hence, the actual ROMBO Kit remains a promise rather than a reality. But take my advice, don't wait for kit (let alone the movie). Get ROMBO, the Book, today. It's a fast reading and explosive manual.

[Editors Note: ROMBO started shipping on August 15.]

THE CLASSICAL CLASSIFIER

P+ By the way, I drafted this article using an outliner program called the Classical Classifier. So if the writing style seems stilted and awkward, blame the medium, not the author.

What's an outliner, you ask?

An outliner is a text editor with special commands that let you organize your writing in an outline format. All the indentation and paragraph numbering is done automatically for you.

Some other programs that do outlining are Brown Bag Software's PC-OUTLINE, Think-Tank, and GrandView. WordPerfect also contains an outliner, but it is rather limited in what it can do.

What is unique about The Classical Classifier is that it runs on the Portable Plus...well, sort of.

The Classical Classifier was written by David Toliver, in 1986. He apparently wanted an outliner that would work on computers that were not 100% PC-compatible. Thanks to the hacking of Joe Jesson, the program now works on the Portable Plus.

I used version 1.2 of the Classical Classifier program. The program needs PCRUN or PPINT16, the PC emulator programs, to work on the Portable Plus. The program is still slow on screen updating and is confusing to use. The program is completely command-driven. There are no pull-down menus nor any pop-up help screens. The commands are similar to those in WordStar-like editors, but some of the commands behave differently. For example, CTRL-KB and CTRL-KK mark the beginning and end of a block of text. However, if the block overlaps an indented paragraph, it is declared an "ill-formed block" and the ordinary block commands won't work. Trying to turn the block off (CTRL-KH) does not appear to work at all.

The outliner comes with an installation program that, supposedly, will let you redefine the function keys to suit

your own tastes. Trying to do so is an exercise in futility. I tried to define CTRL-LEFTARROW to do the same thing as CTRL-A (skip one word left) and was told that this was the same command to "delete a character to the left" and that I should redefine the latter to something else. It took almost an hour of playing around before I could get half of the keys re-assigned. After that I reached a point of diminishing returns. Almost every new definition was declared invalid because it was part of another definition.

Part of the problem is due to the fact that the Classical Classifier was written in Turbo Pascal 3.1 which, in its MS-DOS version, does not do well at handling the keyboard. The other part of the problem is that David Toliver tried to make the program too flexible for the user. Rather than learn a new set of commands, the user must learn how to teach the program what each set of keystrokes means. The program does not like to be taught.

David Toliver claims that he has a more recent version of the program, written in Turbo Pascal 5.5. All of the shortcomings have been overcome: except for one... The latest version of the program does not work on the Portable Plus.

I am now waiting on David Toliver to see if he will be able to modify the program for use on the Plus. Until then, let me conclude by saying that version 1.2 of the Classical Classifier is "not quite ready for prime-time" use on the Portable Plus. It is barely usable on a desk top, PC-compatible computer.

LATEST RELEASE OF STEREO SHELL

Stereo Shell is a file manager program, very much in the mold of Personalized Software's own FILEPLUS. Stereo Shell (StS) will let you work with two different disks or directories at the same time. You can watch the program copy files from one disk to another. Files may be tagged for deletion, copying, compression/decompression (using PKZIP, or LHARC, etc). You may point at a text file and push a function key to either view the file or to edit it. If the file is an executable file, the StS program is smart enough to know that you don't want to view the file. It will execute it instead.

Stereo Shell is now available as version 3.00. This is a major upgrade. More than fixing a few bugs, Emry Wooten has added a lot of new features. You are no longer restricted to using the function keys to start a command. The first letter of the command is often enough to start the function. For example, moving the sliding light bar to a text file and pressing "E" will invoke your Editor and automatically load the file.

Other enhancements to the Stereo Shell program include the following:

- Files can now be moved between drives rather than just between directories on the same disk.
- Exit stage right? The program now allows the user to exit to the left window path, the right window path, or back to the sub-directory from which it was invoked.
- EXIT right now! A new ExtChar-Q command will dump you immediately back to the operating system in the original load directory.
- Vertical wrap-around in file windows is now an option. If enabled, the file windows will wrap from top to bottom or bottom to top when the first/last file is moved past.
- The tab key is now active. The Tab key will now move the cursor between windows.
- File date and time are now changeable with Stereo Shell. The file attribute editor has been enhanced and will now allow the user to change the file date and time as well as its attributes.

There are many other enhancements, making Stereo Shell one of the best file manager programs on the shareware market. Stereo Shell will probably appear on the 1991 Subscriber's Disk.

TURBO ASSEMBLER, VERSION 2.00

For those of you who may want to try your hand at Assembler programming, you may be interested to know that Turbo Assembler 2.00 now works on the Portable Plus. Turbo Assembler 1.00 had some difficulty in running on the Plus. It would not work from the DOS command line. Interestingly, it would work, some of the time, from the PAM shell. The TASM 2.00 bug, if that's what it was, has been fixed.

MIX POWER-C VERSION 2.00

If you're not up to Assembler programming, but you're looking for a cheap way to learn C programming, then how about spending $20 for a full-fledged C compiler? MIX-Software, Inc. (1132 Commerce Dr. Richardson, TX 75081) has recently upgraded their top-selling Power-C compiler. The compiler is relatively fast, performs some optimization of code, and produces .EXE files which are on a par with those produced by Turbo C. I just received my copy of the upgrade and have barely had time to check that it works on the Portable Plus. I would be interested in hearing from anyone who uses this product regularly.

1991 SUBSCRIBERS' DISK

It's that time of year, again, to call for any and all programs that you would like to see on the Subscribers Disk.

If you have any programs, interesting batch files, 1-2-3 or As-Easy-As worksheets that you have found useful, put them on a disk and send them along to the folks at Personalized Software.

For myself, I will undoubtedly include the latest version of VDE and Stereo Shell. Along with these shareware programs, I will include several programs that I have written for my own use. These include GBK.WKS : a 15K byte macro program for use with As-Easy-As. GBK implements a completely automated, grade-book. It will be of direct interest to anyone who teaches. It may also provide some examples of how to get As-Easy-As to display a user-created menu in the middle of the screen, how to generate a pick-list of worksheet files and load and save worksheets automatically.

2400 baud portable modem for your HP Portable

The 4″×2″×1″ WorldPort 2400 costs less than HP's internal modems, is faster, and can be used with more than one computer.

Weighs only 6½ ounces!

If you do data comunications with an HP Portable or Portable Plus, you've probably found the internal 300- or 1200-baud modem to be too slow. Until now, the only solution was to buy a bulky external modem and lug it around wherever you go.

A better solution is the Worldport 2400. It measures a trim 4″×2″×1″, it's rugged, it weighs only 6½ ounces including the battery, and it sends and receives at 300, 1200, and 2400 baud.

A MYRIAD OF FEATURES

The Worldport 2400 has a wealth of features you would expect to find in a desktop modem several times its size.

EXTRA BONUS FOR USERS OF THE IBM PC AND NEW HP PORTABLE VECTRA

Included with the WorldPort 2400 at no charge is the acclaimed communications and remote control software package, Carbon Copy PLUS (retail value: $195). The program also comes free with the WorldPort1200—WorldPort2400 Upgrade Kit. (Carbon Copy PLUS will not run on the HP110 or Portable Plus, but both WorldPort modems will run with HP's communications software, namely the Terminal program for the HP110, and TERM and Reflection for the Portable Plus.)

For example, the WorldPort 2400 has auto-dial, auto-answer, and both pulse and tone operation. It comes with a standard modular phone plug for connecting with the telephone line. It offers nonvolatile storage of up to 20 commands. And it is fully compatible with the industry-standard Hayes AT Command Set, and with the HP110's Terminal software and the Portable Plus's TERM and Reflection software.

Since a modular plug is not always available, the WorldPort 2400 also has a built-in interface for an acoustic coupler. (The coupler, an optional extra, runs at 300 and 1200 baud.) The unit is compatible with both the internationally accepted CCITT communications standards and the Bell communications standards recognized in the U.S..

The WorldPort 2400 uses a standard 9-volt transistor radio battery (it's included with the unit). A fresh battery will keep the WorldPort humming for 8-10 hours. You can extend battery life by operating the unit from a wall outlet whenever possible, using the optional AC adapter. The WorldPort 2400 draws no power from your Portable's battery.

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In addition to our standard 60-day money-back guarantee, the WorldPort 2400 comes with a 2-year manufacturer's warranty covering defects in materials and workmanship.

The WorldPort 2400 offers portablility, reliability, well-designed features, and ease of use. Order yours, risk-free, today.

	Retail Price	Subscriber Price	
WorldPort 2400 modem	**$359.00**	**$319.00**	PRODUCT NO. WM12NM
WorldPort Modem 2400/MNP	**499.00**	**425.00**	WM13NH
WorldPort 1200 modem (without software)	**199.00**	**179.00**	WM11NM
Cable to connect modem to HP Portables	**30.00**	**20.00**	WM14NM
Acoustic coupler (300/1200 baud)	**79.95**	**79.95**	WM16NM
Upgrade kit: WorldPort1200—WorldPort2400 (includes Carbon Copy PLUS software)	**199.00**	**179.00**	WM13NM

RECOMMENDED FOR:			
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Portable Plus	•	HP150	•
IBM PC and compatibles			•

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- ROMSIZ.EXE -- a small utility program for use with the ROMBO eprom burning kit. ROMSIZ will let you list all the files that you might want to put on a 64K or 128K eprom. It will then check the size of the files, convert the actual file size to the number of 1K byte clusters, and total up the clusters. This should take much of the guesswork out of deciding which programs will fit on an eprom.

- NEWFILES.EXE -- another utility program which gathers up the names of all the files on disk which have their archive bit set. The list of names may be redirected to a text file for editing. The names of the files appear as "fully qualified names" (the drive letter and subdirectory path precede the name). With a small amount of editing, the list could be made into a batch file and could serve as a part of a backup routine.

- ALLFILES.EXE -- yet another utility program. This one lists all the files on a given disk in much the same way that the CHKDSK /V command does. The file names are fully qualified, and include the actual byte count per file along with the number of clusters the file consumes on a disk.

A NEW AND IMPROVED LAPTOP COMPUTER

110 P+ PV LS/12

I read with interest in the last issue of The Portable Paper all the requests for Personalized Software to design and build a rugged laptop computer to replace the Portable Plus.

I had started a wish list but ran up against the same red flags that Hal mentioned. (He didn't mention anything about product liability insurance, government environmental safety regulations, advertising, etc.). Even so, it doesn't hurt to dream. That's what wish lists are all about.

For myself, my wish list started with the operating system for the computer: DR-DOS 5. This is a DOS command-compatible operating system from Digital Research: the company that brought forth the CP/M operating system. DR-DOS 5 is completely ROM executable, and even has a built-in battery saver capability.

I'd also want a computer that used a full 80386 microprocessor. Skip the interim kludges of the 80286 and 386SX. (By the time the computer came to market, the cost of 80386 chips should be low).

Again, by the time the computer was a reality, EPROMs should be replaced by EEPROMs (also known as "flash EPROMs" or electrically erasable PROMs). The ideal laptop should be able to support up to 4 meg of these user-installable EEPROMs. CMOS RAM should start with 1 megabyte on board and be expandable to 16 megabytes.

An excellent keyboard would be mandatory (this computer might become my main computer.) If the size of the machine ruled out the use of a full-size keyboard, then it should have the ability to use an external keyboard.

The ability to use an external VGA (or better) monitor would also be tops on my wish list. And, while dreaming, I could also wish for an active matrix LCD color display.

The ideal laptop should also be ruggedly built and be able to withstand all the punishment that the HP Portable and Plus handle.

Battery life should exceed eight hours and, in emergencies, the batteries should be replaceable with an external battery pack stuffed with off the shelf batteries that you could buy at any store. That way, if you forgot your battery charger, you could kludge together a power supply from a local Radio Shack or electronic supply store.

The wish list could go on and on. However, the guiding principle for building such a computer would be that it should be modifiable. If a newer version of the operating system comes along, the computer should be able to switch to it. Newer displays should be part of the upgrade path.

[Ed Keefe is an author, programmer, and computer science instructor. He is the president of the Fast Aid Company, 314 SW Logan, Ankeny, IA 50021. Ed's CompuServe ID # is 73277,1064.] ■

THE SAVVY USER

By Thomas R. Page

Occasionally each of us must apply a little self analysis and adjustment or some external regulatory mechanism will apply its abrupt and precipitous damping forces. Literally this translates to, "Count your money before you spend it." My company's management looked at the income statement and exclaimed, "We-have-got-to-save-money!" It is a perfectly normal and expected reflex of good management. If income is down the reason is obvious. If income is up, they say, "Income has not increased as rapidly as anticipated." All good businesses have a VP programmed to pop-up and gripe about costs every seventeen months. As long as it keeps its reasons synchronized with indicators anybody can read, nobody ever guesses this VP android does not know what he is doing.

The android did not say, "We have to cut cost." It understands that a dollar earned is a dollar saved. Although totally preprogrammed, this is an effective management tool since it requires every one to periodically evaluate how they are doing their job. An appropriate response to this request is to suggest buying some bigger computers so the existing staff can meet increasing demands of the job. We all know adding a computer increases the demands of any job but it is the only way we can survive the job we have. There are few problems a bigger computer won't solve. We must balance this idea with the knowledge that any computer can create problems it can't solve. Computers thrive when used effectively but when they are not used effectively they can become a liability.

A plan to use existing computers even more efficiently is an appropriate secondary response. Make a few suggestions to improve current operations, but ideally new jobs should be proposed for existing machines. We all know portable computers really need a companion desktop machine and of course a powerful 286 laptop demands a 386 rather than a 8088 for its companion. This is an opportunity to start a bulletin board or even send a computer home with an employee. This might help avoid expenses associated with overtime travel to the office to solving a problem and is an effective use of an old machine that has very little value.

See how the game is played? The game is negotiation. Having a big slick computer is great but having another computer too is even better. There is no reason to give up anything you have today but we must find a way to use everything we have. I believe this so much that I loaned my faithful old HP-110 to a friend. He now knows much more about computers than he did before -- an OK investment in my opinion.

Someone suggested the ideal product costs a penny, sells for a nickel, and is habit forming. The object of negotiation is to identify the little products we have and then trade for something the other guy has. We may not be able to produce a product that is habit forming or costs only a penny, but we should always be looking for products to trade. We should always look for opportunities, and a problem is nothing more than an opportunity in disguise. Computers are rather expensive but they can sure be habit forming.

Here are ideas I submitted to make our machines more effective.

1. Audit old disks and recycle those that are no longer needed. (This is an opportunity to identify and preserve key files for history, or quickly and painlessly deal with a pile of totally disorganized disks before management realizes what a valuable resource they could be if properly indexed.)

2. Save disk space via intelligent software installation. There is no reason to keep files on a disk that are not used. Software vendors could give us some help with this. Figuring out what files that came with a program are useful is a very educational hacking opportunity.

3. Compress files with PKZIP or SQUISH PLUS. Obviously saves disk space. SQUISH is almost invisible. PKZIP has a simple DOS command line interface and can save telephone charges if files are compressed before being transmitted to another computer.

   (Ideas two and three create opportunities for users to learn about the organization and logical structure of their machines. This creates more savvy users who will produce better on their computers. This is a result more profitable than the disk that is saved.)

4. Ever a proponent of freedom of computing and having heard horror stories of down time resulting from network failure, I suggested key programs be installed on the user's disk to permit operation independent of the network. I also suggested that disconnecting from the network except when network services are truly needed could release for productive use vast amounts of memory sacrificed to network overhead. Network overhead is those TSRs than must be executing to drive the network connection. Some of these programs make continuing demands on the CPU and significantly reduce the computers speed.

If I talk too much about networks I will be 'talking out of school' since I have absolutely no experience working on a network. For six years my Portable has been my primary computer. My iconoclastic approach to computers probably stems from this awful handicap[?]. I actually had to think to make it work. New out of the box, the 110 must be the easiest computer to start ever built. Open it up and hit a key. But making it really work was a challenge.

Effectively using any tool is a challenge that will demand dedication of an amount of time for education. I can remember a time when it was suggested using the wrong computer could setback one's capability to use a computer. These people could not see that MS-DOS, 1-2-3, Editing, and Communications are the most important core programs of a personal computer and that learning these would create basic knowledge applicable to all computer systems.

A computer network is just another computer tool and there are savvy ways to use it. There is no reward for ineffective use but if used properly a network can be a very effective tool. Don't expect a network to make computers easier to use. It simply creates more options. The most difficult part of computing is putting available options together in a manner that allows accomplishment of a goal. This takes some work on the part of the user but it is far better than the alternative, which is learning a procedure to do a job and then being forever a slave to that procedure. This is an unfortunate dark side of computing which we must always guard against. After all, these machine should work for us. It is just a matter of remembering who is boss. The real purpose of my last suggestion is to get people who know and care more about networks than I to think about how they can be best used.

Also works on the HP150.

FilePlus:
The Portable Plus file manager. Fast, sophisticated, easy-to-use!

- **List files in two directories simultaneously**
- **Copy, move, and delete multiple files**
- **Sort directories**
- **Create protected ("Read-Only") files**
- **Back up only those files that have changed since last backup**
- **And much more!**

When Hewlett-Packard introduced the P.A.M. file manager in 1983, the program was ahead of its time. With P.A.M., users could copy, rename, and delete files by pressing function keys instead of having to enter DOS commands.

Today, however, users are more sophisticated—and so are the file management programs that have come on the IBM PC market. These programs go way beyond P.A.M. in their abilities and in the convenience they offer the user.

Most of these file managers won't run on the Portable Plus, but we've developed one that does. It's called **FilePlus**, and here are its benefits:

1. Display two directories
This is a feature that even some of the most popular IBM compatible file management programs don't have! FilePlus lets you list two directories (from the same or different disks) simultaneously on screen. This makes it especially easy to move files back and forth between the two directories.

2. "Point and Shoot"
You don't have to wade through P.A.M.'s function key menus to perform a simple operation like copying a file.

Instead, you simply display the contents of the source and destination directories side-by-side, tag the file you want to copy, then use a simple Lotus-like menu to enter the "Copy" command with a single keystroke.

You use the same "Point and Shoot" method to run programs and to move, delete, view, etc. any files you wish.

3. Tag multiple files
You can tag any number of files in a directory, then perform the same action (copy, rename, delete, protect, etc.) on all of them *in a single step.*

4. Sort files
FilePlus can list the files in a directory by name, extension, size, or date. (An alphabetical listing by name helps you locate files in a hurry. A listing by size is useful in determining which files to erase in order to free up any needed amount of disk space.)

5. Single-step "Move" command
To move a file from one directory to another, you no longer have to copy the file first then delete the original. FilePlus lets you do it with a single "Move" command—and you enter the command with one keystroke!

6. Protect your files
You can protect your files (make them "Read-Only") to guard against accidental deletion. FilePlus even lets you do this with entire directories! You can unprotect the files whenever you wish.

7. Show attributes (Read-Only, Hidden, Archive)
FilePlus displays the attributes of all the files in a directory so you can view them at a glance or change them in a flash.

8. Backup only if changed
FilePlus allows you back up just those files that have been changed since the last backup.

FilePlus will save you time and effort, boost your productivity, and increase your enjoyment of your Portable Plus. Once you try FilePlus, you won't want to be without it.

Order FilePlus at our risk today!

FilePlus **$69.95**
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WAITING FOR ROMBO

I am excited about creating my own custom ROMs for my Plus but I am still waiting. I may even be the cause the Paper is late this month as I delayed starting this column because I wanted to report my experiences burning ROMs. I did get the software and instruction manual. I thought the manual was well written and organized but of course I can't say for sure until I try to burn a ROM. I am glad Hal sent this out early since it give me an opportunity to think about how I want to organize my ROMs. Except for a few batch files that are subject to modification from time to time I intend to clear all programs from my E-disk. This may be an opportunity to upgrade to later versions' programs. There are several programs of which I do not use the latest version since they are bigger than an almost equivalently effective early version.

In anticipation of ROMBO, I installed Version 1.10 of PKZIP on my Plus just to verify that it would work with mysystem. It is larger than the program that it replaces but it is much faster, and this may even be worth the extra E-disk it is occupying.

Before installing any software I always directory the distribution disks to see what files are there, and if there are any batch files I will take a look to see what they are doing. There are several batch files on the ROMBO disk. I printed copies of these so I can analyze them at my convenience. Reading code is often one of the best ways to learn how a product works. At least it's cheap.

LEARNING TO USE A COMPUTER

The first step in learning to use a computer is to learn an application such as 1-2-3 or word processing. This should be obvious since there is no reason to use a computer unless it is doing something useful. The second step is learning DOS and some file management techniques. There is no reason to know about file management unless you have some files to manage. My early experience with personal computers was using VisaCalc on an HP125. File management was never a problem on this machine since it did not have a fixed disk. If we ran out of disk space we just inserted a new floppy. Without a doubt file management is the key to using a computer but it makes no sense unless there are files to manage.

EDLIN

I got a kick out of Rich Hall's article on Making Edlin Easy in the last issue of the Paper. I recognize there are pleasures to be had from arcane skills such as shoeing horses or writing with a quill pen. As far as I am concerned, editing with Edlin is equivalent to writing with a quill pen. I will admit I am slightly skilled in using Edlin and can use it if pushed against the wall. The real way to make Edlin easy is typing ED to load Personalized Software's The Editor.

If your job is to support a number of computers and their users there is some advantage to using Edlin since it is on everybody's computer. Were this my job I would have a floppy disk with ED and a few other useful utilities such as Norton's Filefind and Undelete to take with me.

Charge your Portable (and HP9114 and ThinkJet) off your car's cigarette lighter!

It's the Mobile Ni-CaD Recharger (MNR-2) from S.O.S., and it couldn't be easier to use: simply plug one end into your car's cigarette lighter and the other into your Portable, Portable Plus, HP9114, or ThinkJet.*

The time it takes to charge a given unit is about 30% longer than with a wall charger. Your car does not have to be running—the unit can operate overnight with no danger of running down a normal car battery.

Mobile Recharger $69.95
Portable Paper subscriber price.....$59.95
PRODUCT NO. PR11NM

* Also works with HP41C/CV/CX, HP71B, and HP75C/D hand-helds: HP82143 and HP82162 printer/plotters; HP82161 cassette drive; and rechargeable reserve battery packs for all these devices.

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Installing ED on everybody's computer and making it easy for the users to edit their own batch files and other text files would be even better.

WEBSTER'S SPELLING CHECKER

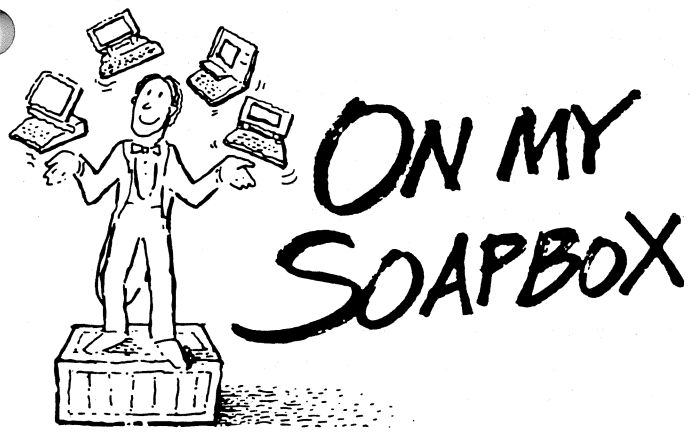
Recently I received a CompuServe message from a person using my SPELL.COM loader for Webster's Spelling Checker (WSP). He was having difficulty updating the auxiliary dictionary. SPELL, designed to work with the ROM version of WSP, saves a little disk space by keeping the auxiliary dictionary in a ZIP file named A:\BIN\WSP.WSZ. In addition Spell allows multiple auxiliary dictionaries. Spell's default auxiliary dictionary should be in named N.AUX. When Spell is executed the N.AUX or other requested auxiliary dictionary is extracted to the current directory and when spell is exited updated auxiliary dictionaries are returned to WSP.WSZ. New auxiliary dictionaries can be created or modified with an editor such as MemoMaker or Ed.

If WSP does not suggest the word you wanted when it finds a spelling error, try the Prev and Next keys. This is a very useful feature of WSP that can be easily overlooked.

If you think WSP is a little too klutzy, try loading it with SPELL.COM. SPELL.COM is available from the Portable Library of the HP Forum on Cserve. The file is named SPELL.ZIP. An earlier pure batch version of Spell is available in SPELL.ARC.

If you really want to smooth the operation of WSP also download EDBAT.ZIP, which contains a loader for ED which links ED, SPELL, and PKZIP to assist with file management.

Yes, I wrote these programs but I would not use them if they were not useful. ■



By David Hughes

In Search of the Golden Goose

110 P+

LESSON NUMBER ONE

One fundamental principle of searching for geese is that in order to find geese, you must go where they congregate. You normally don't find them strolling down midtown Manhattan carrying the Wall Street Journal, nor do you find them frequenting garage sales. Try a quiet pond away from the road, or a large field with low grass. If you're fortunate, you may even spot a pintail swimming in a shady marsh. Sometimes you just need to find the right spot and wait patiently for their arrival. Waiting has some benefits; it gives us an opportunity to wade in the water and relax.

There is a lot to be learned from our short lesson in bird watching. We can apply the same lesson to writing software. There are many man-years of technical brilliance buried deep within the soul of your HP Portable computer just awaiting discovery. Our goal is to learn how to find the right information that will help us solve the challenge at hand.

CHASING THE WILD GOOSE

Since the last edition of the Portable Paper I've been thinking about writing a small utility that would allow users to view or change the System Config parameters directly from the command line. These parameters are normally accessible only through PAM. It's miserable to have to return to PAM, depress F6, change the configuration, depress F8, and then wait for the computer to reboot. Wouldn't it be more convenient to type something like **HPSYS SLEEP=5** to adjust the sleep interval to five minutes?

The first step in developing this utility was to learn how to read the system defaults stored in the configuration EPROM. This was relatively easy, since the Portable Plus Technical Reference gives a detailed listing of the US-configuration EPROM. This information is read into memory through the microprocessor port with the inp() function (C) or Port arrays (**Turbo Pascal**). In fact, the safest and most reliable way to check for the presence of a Portable Plus is to read the product number from the configuration EPROM. No other MS-DOS machine has the same product number stored in this unique location.

The goose chase began when I started looking for a data table which contained the state of the hardware. I'm operating under the assumption that PAM reads the state of each device, and sets it according to the user's wishes every time the computer is rebooted. Therefore, PAM must create and maintain this table somewhere in main memory.

My search began by looking through main memory with the DEBUG utility found in the B:\BIN\ETC subdirectory (perhaps you didn't know your HP Portable PLUS had DEBUG.COM?). By setting the Plus to a default condition, I thought it would be possible to search main memory for a byte pattern that matched the defaults found in the configuration EPROM. The goose kept slipping further away. DEBUG didn't produce the results I sought after.

The chase continued as I began to search deep into PAM with a more robust debugging tool to find the answers to my questions. Learning takes time, and great learning takes even longer. I've learned a lot about PAM, but I haven't found the location of the system configuration parameters yet. Our lesson reminds us that we need to be patient and keep searching. And so I continue the search. Ah, time to kick off my shoes and wade for awhile! If you happen to know where the System Config parameter table is located, drop me a note through Personalized Software. I can tread water for only so long!

WHILE WE WADE

P+

There are many ways to bide our time while looking for a solution to this interesting problem. There has been some interest in developing a set of simple batch utilities that would work in conjunction with the TERM program built into the Portable Plus. The general idea is to be able to write a little batch file that would dial a number through the internal modem. Once connected, the batch file would send the logon and other necessary strings to get to the right menu on the desired BBS or information service. In batch mode you could then send or receive text or binary files with an XModem command. Once completed, your batch file would log you off. For interactive communications, the simple TERM program could be used. Your batch file might look something like this:

```
MODEM pulse
DIAL "1-515-472-6330"
MESSAGE "personalized*software"
MESSAGE "L"
MESSAGE "1"
MESSAGE "D"
XFER R "stuff.arc"
MESSAGE "U"
XFER S "foo.arc"
MESSAGE "bye"
MODEM hangup
```

The utility **MODEM** would allow us to send various commands to the internal modem. The **DIAL** command would dial the number. **MESSAGE** is a general utility to send a carriage return terminated text string out the modem. In this case, our hypothetical bulletin board uses the mnemonics "L" for LIBRARIES, "1" for NEW FILES, and "D" for DOWNLOAD. These, of course, would be different for different bulletin boards. The **XFER** utility would receive (R) a file called STUFF.ARC. We would then send another message to upload a file with the "U" command, and send a file called FOO.ARC. Now that we're complete, we send the message **bye** and then use our handy MODEM utility to turn off the internal modem. This batch file could be called by the PAM.ALM file, so you can have unattended file transfers. You could even use the **XFER** command interactive with TERM if you exit without severing the connection and send the file.

YOUR TURN

The usefulness of the Portable Plus is limited only by your own determination and creativity. Even if you're not a programmer, you can encourage those who are. The simple modem utilities are just a vision. Your thoughts matter. This is your paper. Please let me know if you have any ideas you'd like to add to this loose specification.

As for that system configuration table... it may take some time, so be patient. Remember, not long ago people chuckled at the thought of space travel, and now it's a reality. I'll hang out in the duck blind and keep on looking for an answer. Hopefully it won't take long.

[David is a service engineer of computer power systems at KW Control Systems of Middletown, New York, and a long-time contributor to The Portable Paper.] ■

(Letters continued from page 5.)

110 P+ from HP, and then the demise of machines whose equivalents are only now appearing on the market - I just read an article on a new notebook size machine from National - LCD screen, ROMed operating system, RAM disk,....HP, HP why didn't you make your portables 100% IBM compatible (or Apple compatible for that matter) with a more readable screen and less expensive expansion capabilities????? In this country it was not hard to understand why the Portables didn't sell well. The Plus's price here was three times the US$ price and not at all attractive compared to 100% compatibles. The big problem was also software. Because it is so prohibitively expensive to stay a subscriber to all the newsletters and magazines in the USA, the SA Portable community was largely unaware of the private developments going on over there.

I bought my first 110 in 1985 (it was then fast becoming an extinct species in this country). MemoMaker was a pain!! – no spell checking, no find/replace, no proper backspace key, no....? Typing and editing MBA papers on the 110 was a real cliffhanger. But portability was of prime importance and the 20 hour battery life made me hang on to the machine. I finished my degree and then decided I'd had enough of struggling and started advertising to sell the 110 and buy a "proper" laptop with lots of relatively cheap software. However, I found that I was stuck with the machine! (One enquirer told me that the modem in my 110 was not at all compatible with our phone system; another one saw me (accidently) drop the machine about 80cm onto a solid concrete floor - and suddenly became disinterested - how can a machine still work after that?!!!). *[HP designed the 110 and Portable Plus to be able to withstand 90cm drops].* Then I decided to try (a very last time) to get some software/help from somewhere. This led me to the HP Communicator (not much about the Portables in them, though) and, eventually, PS, and all the good news about real life software available from PS. Considering the size of the market you and the developers are addressing, you must be doing all this for the love of it (the portables? or maybe, HP?).

Interesting to see how some readers complain about the advertising – a sure sign of the ever present economics factor; and the eventual demise of *The Portable Paper* (replaced by the NEC newsletter).

My one 110 is about 5 years old, still with the original battery and going strong. About a year ago I noticed that the Low Battery(!!!) warning appeared when the indicator still showed 60 odd percent charge left, but no problems so far. I just have to keep going.

You, in various editorials, dwelled on the question of what HP did wrong. And, I suppose, so has everyone who really cared about their products. All I can say from personal experience over more than 20 years with HP equipment in this country, is that there are still a lot of people who would love to own HP equipment – IF ONLY THEY COULD AFFORD IT!

I know some people got tired of computers who only talk to themselves. I think we can all salute Apple for staying Apple, keeping their own operating system, and own brand of machine (even though they lost both the founding members of the company).

So why not HP? Their earlier one-line-display machines were capable of things not found in many systems even today. The catch of course is how to maintain the high standards of quality when lowering prices? Volume sales? Aggressive marketing? The market for exclusivity (this is what HP became in this country at one stage - exclusive quality) is shrinking by the day. Even the fully DOS LS/12 was prohibitively expensive here.

Keep up the good work and try to get Mr. Grimmer to finish that pop-up! (my sincere sympathies with him – I know what it takes to try and raise four children!!!) and hang on to Cliff Looyenga, Ed Keefe, etc. and get more (ex) HP engineers, programmers to contribute. I thought I knew something about programming in Pascal, until I read some of Cliff's articles - all about Inline, AX, BX, etc. and realize how little I really know. I wish I could attend some of Ed's classes. His article about the debugger (V4N2) was enough to whet my appetite. Has he published a book about these basics - telling you in simple language what to do and how? (After 20 years with computers you would expect me to know all these things, but remember the four kids!).

I've already managed to raise some eyebrows here (even long time HP dealers, believe it or not) when I tell people about your company and show them the software available (even for the 150). Maybe in the future you can expect some more interest from this part of the globe.

Leslie Van Rooyen
PO Box 146
1752 Paardekraal
RSA

Shelp

Instant Access Pop-ups for the Portable Plus: Calculator • notepad • macros • and more

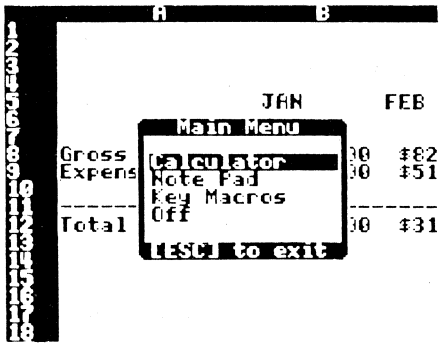
Now available on **ROM Backup** for the Portable Plus (See "Software on ROM" ad in this issue.)

"A great, easy-to-use productivity booster. If there's one program every Portable Plus owner should have, it's Shelp."—Hal Goldstein, Publisher, The Portable Paper

Recommended by Hewlett-Packard, and used by more than 1,000 of their employees.

It's a program called **Shelp** *(shell + help)*, and it runs on the Portable Plus from within any non-graphics program. Here's all you do:

Press [Ctrl] [Shift] [Extend char] and up pops the Shelp menu, right in the middle of your application (Lotus in this example):



The menu gives you 4 choices: Calculator, Notepad, Key Macros, and Off.

Choose **Calculator** and get a 4-function calculator that works just like a pocket calculator with memory. You can:
- save results in ten different storage registers and retrieve them again with two quick keystrokes
- "paste" results at the cursor location in whatever application you were using when you invoked Shelp.

Choose **Notepad** and a "scratch pad" pops up on your screen. Type whatever you want into it, exit to your application, and then recall the notepad whenever you want.

No more having to scribble notes on paper to remind you of phone numbers, things to do, or bright ideas!

Choose **Key Macros** and you can assign "strips" of up to 31 typewriter characters to any of the 26 letters in the alphabet. This saves you having to type the same phrase over and over again.

Example: If you type "United States" a lot, you could assign the entire phrase to the "U" key. Just move the cursor to "U:" in the Keyboard Macros menu and type "United States."

To recall "United States," simply press [Ctrl] [Extend char], then [U]. Presto—"United States" appears at the cursor location in your application!

Choose **Off** and your Portable Plus turns off without having to return to P.A.M., and without having to save your application file. When you turn your computer back on, you'll be in the same place in the same application, with no data lost.

All the capabilities of IBM-PC programs like Borland's SideKick and SuperKey? Certainly not, but Shelp's the only such program for the Portable Plus. It's a clean, easy-to-use, and highly useful helper you'll want at your fingertips always.

Shelp runs on the Portable Plus only. It works with Time-Manager, MemoMaker, Reflection 1, Lotus, and any other non-graphics program. (Shelp does not run with MS Word.)

Shelp was written by Randy Salo, the former HP engineer who authored MemoMaker on the original HP Portable.

PRODUCT NO. SH11NS

Shelp . . . . . $55 ***($49.95 for Portable Paper subscribers)***

60-day no-risk trial: If, after 60 days you are dissatisfied with this product for any reason, you may return it for a full refund. **To order,** use the postage-paid form at the back of this issue, or send check or credit card number to: Personalized Software, P.O. Box 869, Fairfield, IA 52556 515/472-6330

SideKick and SuperKey are registered trademarks of Borland International, Inc.

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Don't Forget International HP-150 Users

It was a great announcement that MS-WORD 5.0 could be soon made available for the HP-150.

May I however point out that HP marketed its 150 in many more countries than just in the USA and that there is a crucial need for those of us configured with a French Azerty - or any other customized keyboard - to get the product working properly on our machines.

I hope that someone will realize it and will seize the chance to make MS - WORD 5.0 fully versatile.

I mentioned this because I experienced that such kind of service could not be made available by the people who developed WordPerfect 4.2 for the HP150, which I found disappointing.

I shall appreciate if you could mention this to whom it may concern to the benefit of all of us not belonging to the USA community.

Many thanks beforehand.

Ph. Ronsse Elsdonklaan
14 2610 - Wilrijk Belgium

[Unfortunately, it looks like an impossibility to put MS Word on the HP-150 or Portable Plus. Sorry to have raised hopes.

I appreciate the points you make about customizing non-U.S versions of products. Our problem is that we do not have the resources to customize our products for different languages and keyboards - especially since we are almost always talking about between 0 to 3 units sold per product per language. I don't like having to think this way, but practically I see no other alternative. Sorry. - Hal]

Expand Your Field of Influence

Responding in your Publisher's Message in Vol. 5, No. 3, I do agree that you will need to expand your field of influence somewhat due to the unfortunate demise of the HP Portables.

I must confess that I have been one of those who have "deserted" the HP Portable, and now have a Compaq LTE/286. I have by no means deserted HP altogether, however, as I have a Vectra LS/12 (on which this is being written) and two Vectra CS machines. In addition, this will be printed on a LaserJet II.

I certainly admire what you have done for the HP user, and I would hate to see all that work go down the drain; although I personally don't see much need myself for portable information in the future. I would, therefore, endorse your idea of a catalog/newsletter on HP printers. Also, the "New Wave News" idea sounds intriguing, although probably not as something which I would use so much as just read for interest.

Of course, if you should find it worthwhile to enter into a publication for users of other HP equipment, such as what I am using, and/or to start something for Compaq users, I would definitely want to subscribe.

I hope that these thoughts may be useful to you as you plan the future of Personalized Software, and I look forward to news of your decisions.

David G. Flinn
W2CFP 866 Ridge Road
Lansing, NY 14882

Speed up your Portable Plus

At least 60% faster with our low-cost "FastPlus" upgrade!

By installing a faster processor and increasing the clock speed of your Portable Plus, you can run Lotus 1-2-3 and other applications at least 60% faster than before.

The upgrade is straightforward, but requires skill and experience working inside a Portable Plus.

If you want to try it yourself, see our instructions in *The Portable Paper* Vol. 3, No. 1, pp. 12-14.

If you want our trained technicians to do it for you, call to schedule an appointment, then send us your Portable Plus and $250.

(This covers the cost of de-soldering the Harris 80C86 processor and replacing it with the faster NEC V30, increasing the clock speed from 5.33 MHz to 8 MHz, and returning your computer to you via UPS surface. If you prefer overnight return shipping, add $35.)

In most cases, we'll perform the upgrade and ship your computer back the same day we receive it. In all cases, we guarantee our work for 60 days.

Please note: This upgrade will void your HP warranty, and HP will be under no obligation to service your Portable Plus in the future. However, we will continue to service upgraded machines, and HP repair centers may, in fact, do the same.

This "FastPlus" upgrade will make your Portable Plus more than twice as fast as the original IBM PC—that's even faster than the HP Portable Vectra!

To save time running your spreadsheets, editing your documents, loading programs, saving files, and almost anything else you use a computer for, order the "FastPlus" upgrade today. You'll appreciate the difference it makes!

"FastPlus" upgrade for Portable Plus $199
PRODUCT NO. FA11NG

(Be sure to call first to schedule an appointment.)

Overnight return shipping . . $35.

User Support "Void" Needs Personalized Software Touch

110 P+ PV LS/12

You've done a remarkable job making and keeping my Portable Plus a powerful tool, and I owe you and your staff a fair sum of gratitude. The features which made it the premier machine when introduced are now for the most part either commonplace or obsolete, but your insight that user support would be needed is what has made my initial investment seem like the bargain of the century. Without your help, this machine would not be on my lap now. So what's next? There is great need for your style of hands-on user support.

Lotus 123 support was part of your original plan, but was set aside due to there being other sources for help and other things needing your attention. We know of no user support that has the right focus, it's either too close-in or too broad, and now only the Lotus Whizzes read that stuff. These folks have not had a significant impact on how people do their jobs; how companies do business; or how new products are created.

We have dozens of PC's here and they've been in place for years, but the Information Systems people tell me that few are being utilized in ways that will help to reshape our business. Many sit idle and more keep track of departmental vacation schedules. An internal PC support staff was organized and operated for several years primarily for Lotus training and assistance, but was discontinued by IS management. This effort failed to produce users with any real creative potential, and we now have a handful of whizzes who seem unable to apply the tools (unless led to the trough) and landlords who use their PC's as office sculpture. We're at the dawn of the information age and under-utilizing the available resources as people were probably slow to embrace the opportunities of the Industrial Revolution.

It's not hardware-oriented or specific, but there is a huge void and if you could apply your proven Personalized approach - we may yet be spared learning German or Japanese.

S. E. Foli
6855 W. 65th Street
Chicago, IL 60638

Observations and Suggestions

110 P+ PV LS/12

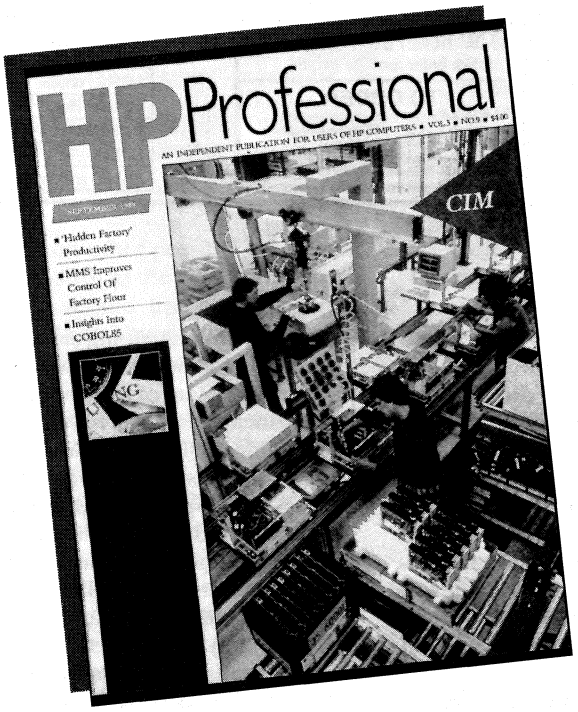
A few quick observations following your "Publisher's Message" in May/June.

I am phasing out my HP equipment and have no intention of going back to them again, (except for Laser printers). This is mostly because HP formats their 3.5" disks in some crazy way so that I can't use them on my Compaq 286e desktop and my Compaq 286 Laptop. Also I have found HP to be getting worse and worse in respect to customer service. Having someone tell you to take your machine back to your retailer when you are six thousand miles from where you bought it can be tedious. But back to you. Laptops are here to stay and you are the man who has been saying so for a long time. Why not a laptop magazine for all laptop users? You could put a slim copy of Laptop User in the with Portable Paper or with UltraLite Connection. Then slim those two as Laptop User gets fatter and takes over.

You have a mailing list and you may want to stick with a subscription-style magazine independent of advertisers. Or you could go the whole way and take ads and go into the shops.

A couple of observations. The trouble with most computer magazines (and Photography magazines) is that they act like their readers collect apparatus rather than use apparatus. Dare I say - The Portable

FREE SUBSCRIPTION OFFER



If you're a Hewlett-Packard computer user, and buyer of HP-related hardware, software, or peripherals, HP Professional, the monthly magazine for Hewlett-Packard commercial and technical computing, is for you. It's a free source of valuable information that will help you do your job.

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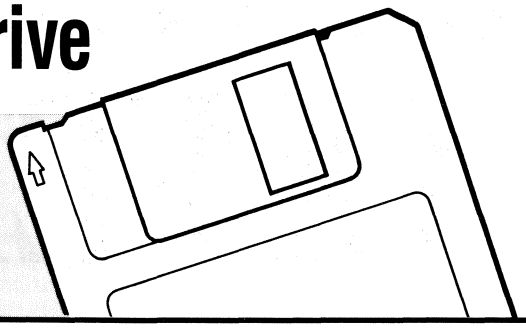
Now you can use HP Portable or HP150 disks

(single or double sided)

in a 3½" IBM compatible disk drive



Volume Pricing Available

Even though your HP Portable/HP150 and the new IBM compatible computers both use 3½" disks, the disks are incompatible—HP disks can't be used in IBM machines.

ReadHP, a "device driver" program developed by Personalized Software, solves the problem.

ReadHP installs in an IBM PC or compatible in minutes, and is a cinch to use: You simply place a 3½" HP disk (single or double sided) in the PC's disk drive, and press a few keys. Voila! The PC can read and write to the disk directly—without losing the ability to read and write to IBM disks.

Want to share your WordPerfect, Lotus, or other files between your HP Portable/HP150 and an IBM compatible with a 3½" disk drive? It's simple: Order ReadHP today.

ReadHP **$79.95**
Portable Paper subscriber price **$69.95**
PRODUCT NO. RD11NS

60-DAY MONEY BACK GUARANTEE
See order form for details.

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RECOMMENDED FOR:	
HP110 Portable	●
Portable Plus	●
Portable Vectra	●
HP150	●
IBM PC and compat.	●

Paper is also a bit like that? A lot of your readers and potential readers are like me: they want to get on with number crunching or word crunching and they don't want to spend hours playing with the machinery and inventing new programs. We like to hear of new machines and new programs, but only if they are simple and practical. Otherwise we want to hear about getting the most out of the machines we already have.

Whatever you do I know it will be great and you have my warmest good wishes.

Len Deighton
Nutwood House
Wormley West End
EN10 7QN England

[Our product READHP allows users to read their HP Portable or HP-150 formatted disks on an IBM PC.

Other publishing houses now produce magazines on laptops. I have always shied away from doing such a publication because of the difficulty of being all things to so many potential readers. What happens is that only a little of the material of such a magazine is relavant to any one user. - Hal]

Interested in NewWave Newsletter

I am very much interested in having a paper directed to "NewWave". For a year and a half I have had a HP Vectra RS 20 and recently I installed "NewWave". I like the program very much but I do think it is rather difficult to handle sometimes. I would like your support in this area.

I do think that there might be interest in general information for the Vectra series. Ideas of new programs, bat-files and so on the same way we have had information for the Portables. Does the offer of combining programs on ROM also include Lotus 123 and other software that you did not produce yourself?

Ingemar Odenbrand
Chemical Technology Center
P.O. Box 124 S-221 00
Lund, SWEDEN

[We cannot legally make copies of any HP ROMmed software. Sorry. - Hal]

Expand Portable Paper to Include Other Laptops

The goal of a publication such as yours would be to help a person set up his equipment to meet his present and future needs. I believe you can do this by continuing to publish the Portable Paper, but consider including ideas for all laptop and portable computers. There are many procedures, techniques and programs that laptop users need that you can describe to them. This is a simple extension of what you are now doing since you suggest programs for both the Portable Plus and the Vectra. Most of the popular computer magazines spend a great deal of effort in evaluating the latest product and improvements; there is very little effort supporting those with laptops or portables. While PCResource does a creditable job with its PC TECHNIQUES column there should be some medium to exclusively assist the portable user in all fields. Many users whose only equipment is the laptop would avail themselves of such a service. Perhaps the Portable Paper could help in the portable and laptop computer domain. The keystroke by keystroke articles in some of your past editions were very enlightening. This is similar to the Cobb Group's The Workshop which is devoted to the intricacies of Microsoft Works. I am sure this approach will find great acceptance.

Along with new programs the laptop user also needs information on how to improve or modify his equipment. While the desktop computer has expansion slots to facilitate changing the equipment, in the laptop, as we have seen with the Portable Plus, modification is difficult if not impossible. One simple example: the laptop user may want to consider an external floppy or hard drive as an addition to meet his growing needs.

At last!
EASY TO USE
COMMUNICATIONS SOFTWARE
for the HP110 and Portable Plus

HP110 users: Tired of struggling with the built-in Terminal program?

Portable Plus users: Is PC2622 or Reflection too complex for your needs?

In either case we have good news: two of the easiest-to-use communications programs we've ever seen.

Term110 was developed by Cliff Looyenga, who writes the "Wizardry" column for The Portable Paper. It runs on the HP110.

TermPlus was developed by Portable Paper contributer David Hughes from an earlier prototype. It runs on the Portable Plus.

Both programs allow you to:

- Send and capture ASCII information;
- Quickly send programs, Lotus worksheets, and archive files via the XMODEM protocol;
- Log onto electronic bulletin boards and remote computers automatically;
- Store and access directories of phone numbers;
- Run other programs without severing the phone connection.

Both programs have on-line help, and use around 25K of electronic disk space.

Most importantly, both programs make efficient, logical use of function keys and menus to make the job of transferring files and programs ***easy***.

You won't appreciate ***how*** easy until you try Term110 or TermPlus for yourself. We invite you to do so today at our risk.

Term110 (for HP110) or
TermPlus (for Portable Plus).....$99.95
(Specify which program when you order)
Portable Paper subscriber price.....$79.95

RECOMMENDED FOR:	Term110	TermPlus
HP110 Portable	•	
Portable Plus		•
Portable Vectra		
HP150		
IBM PC and compat.		
Available on ROM Backup for the Portable Plus*		

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Use enclosed postage-paid order form or send check or credit card information (#, exp. date, signature) to:
Personalized Software
P.O. Box 869, Fairfield, IA 52556 515-472-6330

***ROM backup of TermPlus includes IBM disk formatting utility, ThinkJet control pop-up, and more.**

A discussion on other possible equipment modification such as the expansion chassis and its uses should find much interest. This can include chassis from both the laptop manufacturers and third party suppliers.

I have mentioned these ideas, not because I need or want them, but only as examples for discussion.

Setting up a facility to handle different makes of computers would be prohibitively expensive, necessitating that some of the ideas and suggestions come from the users. Assignment of a particular machine type or program to one person or group may also be necessary.

One last thought, due to the unusual names of programs it would be informative for us to know when we don't need that program because whatever it may do, it can be accomplished by something we own.

There is no interest for me in a newsletter on HP printers or on the "NewWave News". Thank you for the fine work, and for the free disk.

P. A. Romanelli
22 Nob Rd
Utica, NY 13501

110 P+ Problem with HP-IL Card

In late February I purchased a used HP-IL Card for an IBM PC - AT clone from PS. I intend to transfer my Lotus 123 files, generated on my HP-110, to the C-drive, through the HP-IL Card (from the HP91-14A Disk Drive) to the IBM clone B Drive (3.5"). The HP-110 has too small a memory to fully sort my library entries, which exceed 2100 books, with related entries.

Depending upon the Lotus file with As-Easy-As, which is in my AT, I should be able to process further through Sorts, etc. The 110 is ideal for the library work, since our bookcases are on the main floor, as well as in the basement. Instead of entering the data on a note pad, then keying into a computer, the entries are made directly from the physical location of the book.

However, upon attempting to load the HP disk into my config system at bootup, I get "Non system disk or disk error". Retries do not work. If I bypass the disk to proceed, my next message is "Bad or missing HPIL.SYS". Running the TEST on the disk, I get the following:

1. Test 700 (Return) Looking for card at address 700 Card Found.

2. Test 1700 Looking for card at address 1700 Card Found.

3. Test Looking for card at address 1700 Card Found.

If I change the config.sys to Device=HPIL.SYS /a1700 all of the above repeats, and I cannot run the program either.

In reading all issues of *The Portable Paper* relating to the HP-IL card, I find that this is not uncommon.

Ever since your first issue I have been most thankful for your existence, not only for your challenging expertise with the Portables, but for my introduction to "computerese." I've learned much throughout your pages, and have felt good about buying your recommendations - even to the point of experimenting in areas where I felt absolutely no confidence!

I haven't tried FORMIBM as an alternative approach, and I am wondering somewhat about "ReadHP" - however, everything I read leads me to believe that HP-IL should work.

Please H-E-L-P!!

Roy G. Michell, Jr.
Trustee Michell Char. Fdn. & Trust
722 Oakbrook Ridge
Rochester, MI 48307

The HP-IL card does not work with some PC compatibles. Also, every once in a while an HP-IL cable goes bad. Be sure to type ***hplink*** *from DOS or PAM from the HP-110 or Portable Plus. If you call us for technical support, we might be able to help out. - Hal]*

P+ Reflection EXIT Command

If you haven't already researched this one, here is an answer to the letter "ROM for Reflection" on page 43 of the May/June '90 Portable Paper.

When using the Reflection terminal emulator program manually, that is, when you interact with the keyboard and decide on-the-fly what and when to do things, then the safest way to exit the program is to press f8, the Exit key. Note that depending on where you are in the menus,

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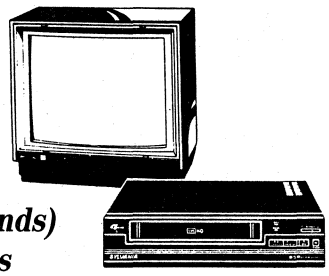

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Used HP Portables make great gifts. HOW TO USE THE HP PORTABLES makes them even greater—because the tapes eliminate much of the struggle and time spent in learning how to use the machines.

See the latest Portable Equipment Exchange brochure for current prices on used Portables. Or call (515) 472-6330. We'll help you select a used HP Portable system that best meets your needs.

HOW TO USE THE HP PORTABLES videotape *Partial list of contents*

Part 1: Overview
- Brief demonstration of what an HP Portable can do: word processing, spreadsheet, database management, communications, time management

Part 2: Fundamentals of Using the HP110 and Portable Plus
- Understanding the value of the HP Portables' RAM and ROM technology
  —Includes demonstration of how to install ROM chips in the Portable Plus
- Maximizing screen readability
- Maximizing battery life
- Making full use of the HP Portable keyboard
- The back of the HP Portables: interfacing with other devices
- PAM, the home screen
  —Managing files and starting programs
  —Using PAM's System Config to best meet your needs
  —Partitioning RAM into main memory and "Edisc" storage

Part 3: Using ROM-based software
- Tutorials on DOS, MemoMaker, Lotus 1-2-3 as a spreadsheet, Lotus 1-2-3 as a database, and data communications using the Terminal or TERM program.
  —These tutorials get you started and give you most of what you need to know about using these programs.

Part 4: Connecting the HP Portables to Peripherals
- Connecting to ThinkJet printer, HP9114 disk drive
- Connecting to IBM compatible computers with HPLink
- Connecting to HP DeskJet and other serial printers

Part 5: Demonstrations of Products That Enhance the HP Portables
- SideWinder (prints speadsheets sideways)
- Shelp (pop-up notepad, calculator, etc.)
- Webster's Spelling Checker
- The Editor (word processor)
- The Norton Utilities (quick unerase, disk sort)
- Portable modems

All this and more in an information-packed 5-hour presentation by Hal Goldstein, president of Personalized Software and leading expert on the HP Portables.

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you may have to press the "System" key first. This will both power-down the communications port for you, and terminate Reflection automatically. This is all that is required, and is completely fail-safe.

You could issue the EXIT command from the Command Line, as mentioned in the reader's letter, to get exactly the results described, that is, the power to the communications port is left untouched. In this instance, you would be operating in the grey area of somewhere in between manual and programming mode, and the onus would be upon the user to execute the right commands in the proper sequence. Normally the EXIT command would be used inside a command file or program. Since Reflection cannot anticipate whether the user wishes to remain connected to the remote computer or not, separate power-down instructions are required. To power- down the port from the Command Line (or issue any terminal escape sequence), use the DISPLAY command. The correct sequence then, would be (two separate steps):

display "^[&bR" exit

After returning to PAM, look at the Datacom Config, and note that the power option will show OFF for whichever communications port you were using.

Since I like things simple, I always use the Exit key because it looks after all the housekeeping for me. When you do create a command file to automate a procedure, make sure that it is completely debugged by going back to PAM's Datacom menu to see if the desired results have been implemented. It seems programming always has its traps, and this is just one of them.

Norm Lang
10688 Glenwood Crescent
E. Surrey, BC V3R 0B4 Canada

HP-110 Advances 3-4 Lines Before Printing

110 While the HP-110 starts printing where I set the paper, the Portable Plus advances 3 - 4 lines. Any way to work around or eliminate this default setting?

Michael Felsenstein
2366 40th Avenue
San Francisco, CA 94116

[None that I know. - Hal]

DeskJet and The Plus

Please set up a Portable Plus (with MemoMaker and HPrint) connected to a DeskJet for some "fun and games" your customers enjoy.

An "Entry Level" write-up is needed in the PORTABLE PAPER, with Hal and Paul involved. An update of the HPrint manual is also sorely needed.

Information in the HP manual is incomplete. Information in the Southern Software HPrint manual is incomplete. Information supplied with the DeskJet from Personalized Software is 180° out of phase with the DeskJet manual--and a bit too simplistic.

The bottom line is that a simple and complete set of instructions are needed for the connecting of these components. One which includes all of the little (seemingly unimportant) details which you "hackers" assume that we numbskulls should know.

IS IT ALL WORTH IT?...INDEED!

P+ We find (after a long struggle) that the DeskJet is a superb printer which produces print-shop quality. By using raw command code data (sans word processor), precise positioning is possible--anywhere on the page.

Hewlett-Packard, in the DeskJet manual, suggests that the dip switches in the Printer be set (A)4-up, all others down. When (B)5 is up, the 19,200 baud rate provides faster printing. When (A)4 & (B)3 are up, "line draw" (from optional font cartridges) is enabled.

From the PAM screen, select "system config", then, "datacom interface". Be sure that the datacom interface in "system config" is directed away from the "serial" port (select "modem" or "HP82164A). Back to PAM, select "datacom config" to set up serial port. Settings should be "19,200" "8" "1" "none".

Key in a page of text, run it through HPrint and get a very professional page from the DeskJet! (Murphy is oh-so patient). On another page, key in a few lines of text, and insert a small sketch at about column 31.

THE PLOT THICKENS

I have sent you three figures (it wasn't planned that way) printed from the same memo. The large figure (right) is "as planned". The center figure is the result of selecting "NLQ-ON" from the HPrint menu. Turn NLQ back-off, and a third (left) drawing results! Playing with 12/10 pitch on the HPrint menu will shift the drawings left/right by a couple columns.

Things continue to get worse until it is discovered that only a "printer reset" will unlock the glitch. In the search for a solution, 4100 other settings have been "scrambled"!

HPrint must be set-up as follows: Press the "Enter" key, then 2 to select printer type, then 2 "QuietJet" (closest thing to DeskJet). Press Enter, then 3 to select printer connector, then 6 "Com 1".

The HPrint menu "NLQ" toggle must be in the "off" position. And remember, HPrint "pitch" selection will also shift graphics left/right.

Mike Mooney
B & M Distributors
Highway 59 South
P.O. Box 667
Heavener, OK 74939

Thanks for Your Help

Thank you all very much for your unequaled support in providing me with the great deal and technical support. With the great Lotus software I was able to buy my first house! Thanks everyone.

Bodhi Rovner
304 N. Main
Fairfield, IA 52556

■

HP110/HP110+ USER GROUPS

Thanks to so many of you who are willing to help organize local users groups. Users groups give an opportunity to share tips, answer questions, discuss other products, trade free software and Lotus templates, and meet other professionals. As you will notice, some areas have more than one contact person and some major areas have none. If you are in a "missing" area and would like to organize a group, contact us. If your groups combine, also tell us. We will publish this column each issue, keeping it up to date. Write: *Local Users Groups, Box 869, Fairfield, IA 52556 515-472-6330.* **California**, *Southern California* We meet 2nd Thur 7-9 at HP sales office, 5161 Lankershim Blvd, North Hollywood. Request PORTOVEC Notes Newsletter, Dave Mark, 818-794-4969. *San Diego* Steven L. Eyre 619-452-8530, Dan Butterfield, 619-470-3551. *San Mateo, Santa Clara Counties, San Francisco Bay Area,* BAYCHHU, HP Laptops & Handhelds, meet 2nd Sat of the month, Contact Michael Felsenstein, 415-564-8279 eve. *Sunnyvale* Interex Int'l Hewlett Packard Users Group, 640 Almanor Ave, 408-738-4848. **Colorado**, *Colorado Springs* Dan Ritt, 303-528-8080. *Denver* call Bob Pressey, 303-777-0326. **Hawaii**, *Honolulu* Rodney Y. Fukuya if interested , 808-945-3111. **Indiana**, *Indianapolis,* Bob Glass, 317-638-2326. Iowa, *Mid Iowa* Ed Keefe D: 515-964-6644 E: 515-964-7064, *SouthEast Iowa,* Hal Goldstein, 515-472-6330. **Minnesota**, *Minneapolis/St.Paul,* John Ferman, 612-822-1372. **Maine**, *Yarmouth,* Every last Tues 6:30, US route One, Yarmouth, ME 04096, 846-5497. **North Carolina**, *Charlotte and Surrounding Area,* John Jacob, 704-334-3468. **Texas**, *Houston,* Thomas R. Page D: 713-759-4259 E: 713-528-7138. **Washington**, *Eastern Washington, Northern Idaho, Western Montana, and possibly Western Washington,* Bob Sandberg, 509-466-4999. *Eastern Washington,* Stephen S. Warner, D: 509-534-1588, E:509-535-3322. *Western Washington,* Portable Plus, 150 and Vectra users meet first Thurs 7-9 pm, HP sales office, Bellevue, Pete Ross, 206-342-8875. Portable, 40 & 50 Series: 7-9pm second Wed., U.Wash. computer center, Seattle, Bob Moore, 206-543-7879. **Washington D.C.**, *Greater Washington D.C. area,* 8:00 pm, Third Monday of each month, Ballston Tower #1 800 N. Quincy St., Room 519. Call to confirm and say Hi. William F. Cross, D:202-696-4112, E:703-845-9508. **Australia**, 8 Avoca St. S. Yarra, Victoria, Australia. Nigel S. Ball. 03-267-8344. **Central America**, I would be happy to form a users group, either Spanish or English, Apartado Postal 1587, Tegucigalpa, Honduras. **England**, HP Computer Users Association LTD, Cunningham House, Bessborough Road, Harrow, HA1 3DX, United Kingdom, 01-423-3313. **Japan**, I would like to help start a users' group. Michael Lazarin, 26-26-502 Moto Ujina; Minami-ku, Hiroshima 734 **Netherlands**, Mr. R.M. Franquiner, Menthenbergseweg 13, NL-6816 PR, Arnhem, The Netherlands. **Spain**, Club de usarios HP 110, Pont Reyes S.A., A la atencion de D. Enrique Serra, Ronda Universidad, 15, 08007, Espana. **Sweden**, Stokholm, first Thurs each month 6:30 pm, call to confirm. Jens Pettersson, 08-713-1710. Telex 149 70 gentel S.

WordPerfect 5.0 (and 4.2) for

You don't need an IBM PC to run the world's best-selling word processor. Now you can use industry-standard WordPerfect on your HP150 or Portable Plus!

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WordPerfect not only performs all the usual functions you would expect from a full-featured word processor, such as:

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- right justification
- undeleting of deleted text
- and more,

but it also offers a carload of advanced features—such as:

- Text in Columns
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- 115,000-word Speller
- Thesaurus
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- And built-in Math functions for creating a mini spreadsheet anywhere in your document.

Best of all, **you can run the complete WordPerfect on your Portable Plus or HP150 Touchscreen.** (Depending on the kind of Portable Plus or HP150 you have, you can use either WordPerfect 4.2 or the new 5.0.)

To learn more about the world's most advanced word processor—and how to use it on your HP computer—read the information on these two pages. Better still, try our Portable Plus or HP150 version of WordPerfect for yourself *at our risk.*

Order WordPerfect today, and put it through its paces.

Use it to format documents in a fraction of the time it took you before.

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If, within 60 days, you feel that WordPerfect isn't everything we say it is—or if you are dissatisfied with WordPerfect *for any other reason*—simply return it and we'll send you a full refund.

	Product Number	Retail Price	Subscriber Price
WordPerfect 5.0 for the Portable Plus (includes PlusPerfect)	WD17NS	$645	$395
PlusPerfect	WD14NS	$150	$129
WordPerfect 5.0 for the Portable Plus, with ROM Backup (includes WordPerfect, PlusPerfect, Backup ROMs)	WD11NK	$940	$595
WordPerfect ROM Backup*	WD12NR	$295	$295
Wordperfect 4.2 for the Portable Plus	WD14NS	$435	$339
WordPerfect 5.0 for the HP150	WD13NS	$495	$395
WordPerfect 4.2 single-sided for HP150	WD12NS	$435	$339
WordPerfect 4.2 double-sided for the HP150	WD11NS	$435	$339

WordPerfect Upgrade Kit (Upgrades Personalized Software Portable Plus or HP150 version 4.2 to 5.0) ..... Call us for pricing and other details.

* Requires proof of purchase of WordPerfect 5.0 and PlusPerfect, and written confirmation that you will honor the WordPerfect license agreement.

Here's What You Get

Here's what you receive when you order the Portable Plus or HP150 version of WordPerfect (published exclusively by us). Note: See box below to determine whether you should buy WordPerfect 4.2 or 5.0.

1. **Complete WordPerfect software and Users Manual**
The entire IBM PC version of WordPerfect (on 3½" disks) and the standard WordPerfect users manual.

2. **Special utility programs**
Our versions of WordPerfect 4.2 and 5.0 both come with an IBM PC emulator program that allows WordPerfect to run on your HP computer. (The Portable Plus version of this emulator is called PlusPerfect.) Our disks also include "batch" files that allow you to run WordPerfect automatically.

3. **(Optional) ROM Backup for Portable Plus**
6 ROM chips containing PlusPerfect and a significant portion of WordPerfect 5.0. (You can use 4 or 6 of these ROMs, depending on the amount of space available in your ROM drawer.)

Although you'll still need to store a 300K WordPerfect file on your disk and set main memory to 376K, this ROM Backup saves you up to 384K of RAM.

To purchase the ROM Backup, you must already own (or order) WordPerfect 5.0 and PlusPerfect on disk.

4. **Instruction booklet**
In addition to the comprehensive WordPerfect users manual, we supply our own instruction booklet. It tells you, step-by-step, how to get started, what to ignore in the users manual, and how to use WordPerfect on your HP computer.

5. **Keyboard template**
We also include a convenient 4-color keyboard template that we've designed specifically for the unique keyboard layout of your Portable Plus or HP150. The template shows you, at a glance, which keys to press to execute each of WordPerfect's functions.

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the Portable Plus and HP150

Frequently Asked Questions

(If you have additional questions, don't hesitate to call us!)

Q. Are the Portable Plus and HP150 versions of WordPerfect identical to the IBM PC version?

A. WordPerfect 5.0 and 4.2 are identical on all three machines, except:

a.) the on-line tutorial does not run on the Portable Plus or HP150. (However, the "learning" section of the users manual covers the same material as the tutorial.)

b.) the "Preview Document" feature (which shows special fonts and graphics as they will appear on printing) functions in a limited way.

c.) Some extra, unessential utilities that come with WordPerfect do not run on the HP150 or Portable Plus.

With both 5.0 and 4.2, if you already know how to use WordPerfect on an IBM PC, you can use the HP version right out of the box.

Q. Can I transfer WordPerfect files back and forth between different versions of WordPerfect and between my HP computer and an IBM PC?

A. Yes to both.

WordPerfect 5.0 has a built-in transfer utility that makes sharing files between versions of 4.2 and 5.0 easy.

Moreover, WordPerfect produces identical files on an IBM PC, Portable Plus, and HP150. The only difficulty that may arise in transferring files between these machines is that HP and IBM computers use different formats. If you don't already have the ability to accomplish the transfer, you can either use our Disk Conversion Service or a variety of hardware or software solutions, depending on your system. For details, see "File Transfer Made Easy," in our product listings in this issue.

Q. Where can I get assistance in using WordPerfect on my HP150 or Portable Plus?

A. If you have a problem related to the HP150 or Portable Plus—or if you're not sure where the problem lies—call us. If you have a question about how to use a WordPerfect feature, call WordPerfect Corporation. They are famous for the calibre of their customer support, and you can call them toll-free.

Q. Will the HP version of WordPerfect work with my printer?

A. Our instruction booklet tells you how to run WordPerfect with all printers that work with your Portable Plus or HP150, including serial, parallel (Centronix), HP-IB, and HP-IL.

WordPerfect in Brief

Here are some of the advanced features that have made WordPerfect the world's number-one selling word processor. (These features are common to WordPerfect 4.2 and 5.0).

Speller
WordPerfect's built-in spell-checker is fast, thorough, and easy to use. The main dictionary contains 115,000 words, and you can add words of your own to one or more auxiliary dictionaries. The Speller also counts the number of words in a document or in any block of text.

File merging and mail merging
With WordPerfect, it's easy to produce personalized form letters (mail merging), and to assemble reports, proposals, and contracts from pre-written components.

Thesaurus
WordPerfect's Thesaurus helps you find the right word when you need it. Synonyms are grouped by noun, verb, and adjective, and at the touch of a key, you can look at second and third levels of alternatives.

Columns
WordPerfect's Columns feature is ideal for writing a newsletter, glossary, script, or any text that requires columnar format. Up to 24 columns can formatted in either newspaper style (snaking) or parallel style (side-by-side). The columns appear on the screen exactly as they will print on the page.

Footnotes and endnotes
WordPerfect streamlines the task of creating and editing footnotes and endnotes. Just enter information at the appropriate spot, and WordPerfect takes care of numbering and formatting—including allowing just the right amount of space at the bottom of the page. If you later add or delete a note, WordPerfect will automatically renumber the others.

Table of contents
Mark portions of your text, specify a format, and WordPerfect will automatically generate a Table of Contents and an Index for your document.

Math
WordPerfect lets you use 4-function math for calculations across columns and for subtotals, totals, and grand totals down columns, anywhere in your document. Whenever you change a number, WordPerfect updates the totals. It's like having a mini spreadsheet at your fingertips—without leaving WordPerfect.

Sort
You can sort lines, paragraphs—even external database records—from within WordPerfect. You can apply logical rules to the sort: It's easy, for example, to generate an alphabetized list of all customers in California who have purchased more than $100 worth of merchandise within the last 6 months.

WordPerfect's Newest Version

Here are the main features that have been added to WordPerfect in upgrading it from Version 4.2 to 5.0:

Fonts and printing
WordPerfect 5.0 lets you set margins, tabs, etc. using inches, centimeters, and points. Fonts may be freely mixed and changed without affecting margins, tabs, or column definitions.

Integrated text and graphics
WordPerfect 5.0 lets you insert graphic images from most graphics programs directly into your text. You can enlarge, reduce, move, and rotate most images to your specifications.

Styles
You can combine text and codes to create a specific "style," or format, that you can then use over and over again (for chapter headings, subheadings, etc.).

Document compare
WordPerfect 5.0 will compare the on-screen document to an existing document on disk. Text that has been added will be "red-lined" (marked with a vertical bar in the left margin), and text that has been deleted will be shown in "strike-out."

Keyboard redefinition and macros
WordPerfect 5.0 lets you store any sequence of keystrokes so that those keystrokes will be executed upon the press of a single key. This "macro" feature allows easy entry of repeated text and commands. One way to use macros is to change the key assignments for WordPerfect's features. There is no limit to the number of different keyboard layouts you can thus define.

WordPerfect 4.2 or 5.0—Which Should You Buy?

To determine which version of WordPerfect to buy—4.2 or the new 5.0—follow these steps:

Step 1. Assess your needs.
Please see the column, "WordPerfect's Newest Version" (at top right) to learn about the features that are unique to Version 5.0. If you need these features, then 5.0 is the version for you, provided your machine can run it (see below).

Step 2. Check your memory size.
Portable Plus:
To comfortably run Version 5.0, you'll need a machine with at least 896K of RAM (e.g., a 512K Portable Plus with a 384K RAM drawer, or a 128K Portable Plus with two 384K RAM drawers).

With an 896K machine and our ROM version, you can run WordPerfect without an HP9114 disk drive. Otherwise, with an 896K Portable Plus, you need to load WordPerfect from the HP9114. Once you load WordPerfect, you no longer need the HP9114 to run WordPerfect.

To comfortably run Version 4.2, you'll need a machine with 640K of RAM.

You can run either version of WordPerfect with just 512K of RAM if you're willing to do a lot of disk access from your HP9114.

Note: You might consider purchasing a 1 Megabyte RAM drawer for your Portable Plus. This would let you bring the superb WordPerfect speller module wherever you go without having to load it in from an external disk drive. And with a megabyte of extra RAM, you'd have lots of room left over for text files.

HP150:
To run Version 5.0, you'll need 512K of memory and a double-sided disk drive.

To run Version 4.2, you'll need 256K of internal memory and either a double-sided or single-sided disk drive. (Note: If your HP150 uses **single-sided** disks, you'll also need a hard disk drive to run Version 4.2. Neither version of WordPerfect will run on a dual-floppy single-sided HP150 system.)

Our recommendations:
In general: Choose WordPerfect 4.2 if: (a) your machine demands it, or (b) you're already using 4.2 on other machines and don't intend to upgrade, or (c) you wish to save some money and don't need the new features in WordPerfect 5.0.

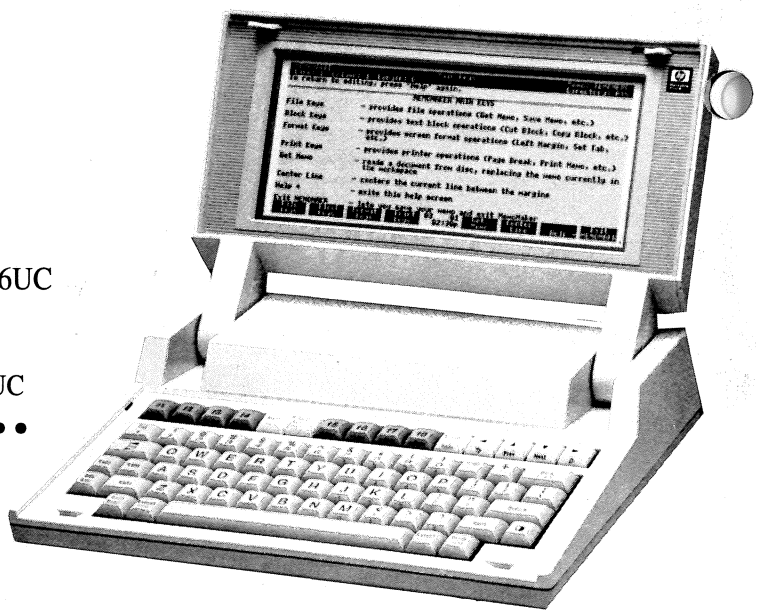
On the other hand, if you want those new features and your machine can handle it, WordPerfect 5.0 is the one you should get. If you use a Portable Plus, you'll tie up the least amount of RAM if you purchase our ROM Backup version of WordPerfect 5.0.

Like-new 512K Portable Plus Only $995!

PROD. NO. PP36UC

Used $795

PROD. NO. PP16UC



Each like-new Portable Plus comes in its original packaging with new battery, new manuals, and our one-year guarantee.

PORTABLE PLUS RAM SPECIAL

- Like-new 512K Portable Plus
- 128K RAM drawer
- 7 great programs: The Editor II (easy-to-use word processor)
  - Webster's Spelling Checker
  - FormatPlus (integrated word processing command center)
  - FilePlus file manager • Shelp (pop-up notepad, calculator, and keyboard macros)
  - As-Easy-As (Lotus 2.0 work-alike) • GamesPlus (11 great games on one disk)

Entire system - only $1295!

PRODUCT NO. BU11UX

PORTABLE PLUS ROM SPECIAL

- Like-new 512K Portable Plus
- 128K RAM drawer • ROM drawer
- 6 great programs on ROM Backup (disk and ROM):
  - The Editor II
  - Webster's Spelling Checker
  - FormatPlus
  - FilePlus
  - Shelp
  - As-Easy-As (Lotus 2.0 work-alike)
- GamesPlus on disk

Entire system - only $1595!

PRODUCT NO. BU13UX

PORTABLE PLUS TERMINAL SPECIAL

Ideal for HP3000, VAX, and mainframe users

- Like-new 512K Portable Plus
- 1200 baud internal modem
- ROM drawer • Reflection/PC2622 (terminal emulation communications software) on ROM • MemoMaker (word processor) and Time Manager on ROM

Entire system - only $1395!

PRODUCT NO. BU15UX

Save an additional $550! Substitute a *used* 128K Portable Plus configured with a 128K RAM drawer (256K total). Your price: only **$845!!**

PRODUCT NO. BU17UX

SAVE $200 Substitute a refurbished 512K Portable Plus and subtract $200 from any of these 512K systems. Same 60-day trial! Same 1-year guarantee!

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